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**QUARTERLY MONITORING REPORT
ACTIVE TREATMENT SYSTEMS
FIRST QUARTER 2004**

**AMERICAN CHEMICAL SERVICE NPL SITE
GRIFFITH, INDIANA**

MWH File No. 2090601

Prepared For:

**American Chemical Service NPL Site RD/RA Executive Committee
Griffith, Indiana**

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June 2004



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**AMERICAN CHEMICAL SERVICE NPL SITE
GRIFFITH, INDIANA**

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ACRONYMS AND ABBREVIATIONS

| | |
|-------------------|--|
| AMSL | Above Mean Sea Level |
| AS | Air Sparge |
| BOD | Biological Oxygen Demand |
| BW | Barrier Wall |
| BWES | Barrier Wall Extraction System |
| cfm | Cubic Feet per Minute |
| DPE | Dual Phase Extraction |
| EF1 | one effluent sample |
| GAC | Granular Activated Carbon |
| Global | Global Engineering |
| GWTP | Groundwater Treatment Plant |
| IDEM | Indiana Department of Environmental Management |
| IN2 | duplicate influent sample |
| K-P | Kapica Pazmey |
| lb/hr | Pounds per Hour |
| LDC | Laboratory Data Consultants |
| mg/kg | Milligram per Kilogram |
| mg/L | Milligram per Liter |
| NC | Not Calculated |
| ND | Not Detected |
| NE | No Effluent Limit Established |
| NS | Not Sampled |
| OFCA | Off-Site Containment Area |
| PCBs | Polychlorinated Biphenyls |
| PGCS | Perimeter Groundwater Containment System |
| ppm | Parts per Million |
| psia | Pounds per Square Inch, Atmosphere |
| PSVP | Performance Standard Verification Plan |
| QAPP | Quality Assurance Project Plan |
| QA/QC | Quality Assurance/Quality Control |
| SBPA | Still Bottoms Pond Area |
| SVOC | Semi-Volatile Organic Compounds |
| T-102 | Aeration Equalization Tank |
| TOC | Top of Casing |
| TOIC | Top of Inner Casing |
| TOSG | Top of Staff Gauge |
| TSS | Total Suspended Solids |
| µg | micrograms |
| µg/L | micrograms per liter |
| U.S. EPA | United States Environmental Protection Agency |
| VOC | Volatile Organic Compounds |
| "Hg | Inches of Mercury |
| "H ₂ O | Inches of Water |

1.0 INTRODUCTION

MWH, on behalf of the ACS RD/RA Executive Committee, started up the on-site groundwater treatment system at the American Chemical Service NPL Site (ACS Site) in Griffith, Indiana on March 13, 1997. The groundwater treatment plant (GWTP) system was designed to treat groundwater from the Perimeter Groundwater Containment System (PGCS) and the Barrier Wall Extraction System (BWES). The original treatment consisted of a phase-separator for oil and free product removal, equalization tanks, a UV oxidation unit for destruction of organic constituents, and an air stripper to remove methylene chloride and other organics. The treatment also included a chemical precipitation and clarification unit to remove metals, a sand filter to remove suspended solids, and activated carbon vessels for final polishing of the treated groundwater before it was released to the west of the site.

In 2001, an activated sludge treatment unit was added to the process to reduce the volatile and semivolatile organic compounds (VOCs and SVOCs) in the collected groundwater. The activated sludge treatment process also reduces the amount of activated carbon required to treat the water. An aerated equalization tank was also added to the GWTP in 2001 to remove VOCs from the collected groundwater, oxidize metals to increase metals removal efficiency in the chemical precipitation unit, and equalize groundwater flow through the GWTP. The activated sludge system and aeration tank have been fully integrated into the process along with the other upgrade components. Startup and optimization of the catalytic oxidizer/scrubber air treatment unit was also conducted during 2001.

The treated effluent from the treatment system is discharged to the nearby wetlands, west of the treatment system, in accordance with Agency approvals.

In the fall of 2001, MWH began construction of an In-Situ Vapor Extraction (ISVE) system for the Off-Site Containment Area (OFCA) and the Kapica-Pazmey (K-P) Area, both within the area known as the Off-Site Area. The Off-Site Area ISVE system consists of 42 ISVE wells, a blower system, a thermal oxidizer/scrubber unit, and the associated mechanical and electrical components. The construction of the system was completed at the end of March 2002 and the system was started on May 1, 2002 after the startup of the thermal oxidizer and scrubber system was completed. Protocols and goals for the phased startup of the Off-Site System as defined in the Final Remedy (Montgomery Watson, 1999) were followed.

In the beginning of 2003, MWH began construction of an ISVE system for the Still Bottoms Pond Area (SBPA). The SBPA ISVE system consists of twenty-five ISVE wells, twenty-one dual phase extraction (DPE) wells, six air sparge wells, a blower system, and the associated mechanical and electrical components. The construction of the system was completed and the system was started in July of 2003. A new thermal oxidizer/scrubber unit was installed in the GWTP in the spring of 2003. The new unit was installed to treat vapors from both ISVE systems.

This Active Treatment Systems report summarizes effluent analytical data, catalytic oxidizer/scrubber (annually) and thermal oxidizer off-gas analytical data, ISVE process monitoring data, and water level gauging data collected from January 2004 through March 2004. This report also details modifications or upgrades to the active treatment systems during the reporting period.

2.0 GWTP COMPLIANCE MONITORING

2.1 INTRODUCTION

Effluent samples are collected on a regular schedule from the treatment system to demonstrate compliance with the discharge limits (Table 2.1) established by Indiana Department of Environmental Management (IDEM) and United States Environmental Protection Agency (U.S. EPA). The approved Performance Standard Verification Plan (PSVP) requires quarterly effluent sampling for biological oxygen demand (BOD), total suspended solids (TSS), SVOCs, metals, and polychlorinated biphenyls (PCBs) in the system, and monthly effluent sampling for pH and VOCs, as shown in the table below. In accordance with the PSVP, a full analysis effluent compliance sample was collected during February and analyzed for all of the analytes listed above. During March, the monthly effluent compliance sample was analyzed for VOCs and pH only. Due to the exceedence of the discharge limits for methylene chloride detected in the December 2003 compliance sample and the subsequent resamples collected in January 2004, the GWTP was placed into recirculation mode on January 23rd. The GWTP was placed back into normal operation on February 10th. Because of the issues with the GWTP and because there was no discharge during the last week of the month, no compliance sample was collected in January.

Sampling and analyses were performed in accordance with the Quality Assurance Project Plan (QAPP) prepared by MWH for the ACS RD/RA Executive Committee in March 2001 and approved by the Agencies in November 2001. Quality control measures were also instituted in accordance with the PSVP. The following table and paragraphs present details on sampling and analyses and also summarize the analytical data for the treatment system effluent.

Sampling Frequency Schedule – Groundwater Treatment System

| Analytes | Cumulative Time From Startup* | Frequency |
|---------------------------------|-------------------------------|------------------|
| Flowrate | - | Continuous |
| BOD, TSS, SVOCs and Metals | 181 days onward | Once per quarter |
| VOCs and pH | 31 days onward | Once per month |
| PCBs | 181 days onward | Once per quarter |
| PCBs in Sediment (one location) | - | Once per year |

*Note: System was started up on March 13, 1997

2.2 EFFLUENT SAMPLING AND ANALYSES

Effluent samples were collected each month during the first quarter of 2004, except for January. Samples were collected on the following dates and analyzed for the listed analytes for this reporting period:

| | |
|-------------------|--|
| February 10, 2004 | full analysis (pH, TSS, BOD, Metals, VOCs, SVOCs, pentachlorophenol, and PCBs) |
| March 2, 2004 | pH and VOCs |

The above samples were collected directly from a sampling tap on the effluent line of the treatment system. The samples were placed in contaminant-free containers, in accordance with the U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample Containers (U.S. EPA, 1992). Appropriate sample containers and preservatives, as specified in the QAPP, were used to collect and preserve the samples. Following sample collection, the temperature of the sample containers was maintained at or below 4° C in coolers. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment system to the laboratories. In accordance with the approved QAPP, the effluent water samples were analyzed for the following parameters by the following analytical methods:

| <u>Parameter</u> | <u>Analytical Method</u> |
|----------------------------|---------------------------------|
| VOCs | SW-846 8260B |
| SVOCs | SW-846 8270C |
| Pentachlorophenol | SW-846 8270C and SIM |
| Pesticides/PCBs | EPA 608/SW-846 8081/8082 |
| Metals (Excluding Mercury) | SW-846 6010 |
| General Water Quality | |
| Parameters (TSS and BOD-5) | EPA 160.2 and 405.1 |
| Mercury | SW-846 7470 |
| pH | EPA 150.1 |

2.3 EFFLUENT ANALYTICAL RESULTS

2.3.1 GWTP Effluent Samples

The GWTP effluent monitoring data, summarized in Table 2.2, verify that the system effluent was compliant with the discharge limits presented in Table 2.1. No exceedences were reported in the February or March samples.

On January 13th, MWH received the initial laboratory results for the December effluent sample, which indicated a methylene chloride concentration of 8.5 micrograms per liter ($\mu\text{g}/\text{L}$), exceeding the effluent discharge limit of 5 $\mu\text{g}/\text{L}$. The U.S. EPA and IDEM were informed via telephone of the exceedence and a letter was submitted on January 16th to describe the findings and MWH response actions.

Methylene chloride is a common compound used by laboratories for cleaning equipment and the laboratory, CompuChem, has had issues with methylene chloride detections in it's blanks in the past. Therefore, MWH believed that the detection was likely associated with a laboratory quality assurance/quality control (QA/QC) issue. To evaluate this potential, an additional effluent sample was collected on January 14th and analyzed by CompuChem for VOCs on a rush turn around time to determine if the compound could be attributed to laboratory contaminants. The results of the resample indicated a methylene chloride concentration of 11 µg/L, still exceeding the discharge limit.

To further determine if the exceedences were a laboratory QA/QC issue, a third sample was collected and analyzed by a different laboratory, Simalabs International, on January 21st. The results of the Simalabs sampling indicated a methylene chloride concentration of 8.7 µg/L, still exceeding the discharge limit. Therefore, it was determined that the elevated methylene chloride concentrations observed in the December 29th compliance sample was not the result of improper laboratory QA/QC procedures. The GWTP process was evaluated and the data review was performed by MWH engineers. This evaluation indicated that the methylene chloride previously adsorbed with the granular activated carbon (GAC) could be being displaced by other volatile compounds.

The GWTP was placed in recirculation mode on January 23rd. The GWTP was placed back into normal operation on February 10th after samples collected indicated that the effluent was within the discharge limits for all compounds including methylene chloride. On February 3rd, while the GWTP was in recirculation mode, the granular activated carbon (GAC) was replaced in the carbon vessels. Due to the issues with the GWTP during January, no compliance sample was collected for January.

The analytical data sheets for the compliance samples are provided in Appendix A.

Compuchem Laboratory of Cary, North Carolina performed the analysis of the samples. Laboratory Data Consultants (LDC) of Carlsbad, California performed third party data validation in accordance with the U.S. EPA National Functional Guidelines for Organic/Inorganic Data Review. Validation qualifiers are listed in Table 2.2 and are written in the margin of the analytical data sheets provided in Appendix A.

2.3.2 Sediment Sample

MWH conducted an investigation of the wetland areas north and west of the ACS site in May 1996 after earlier Remedial Investigations (RI) indicated the presence of PCBs. Locations for soil/sediment samples were selected by representatives of the U.S. EPA and MWH to more clearly delineate the extent and concentrations of PCBs in the wetland. Samples were collected from several locations across the wetlands. Results of this sampling indicated that low level residual PCBs, including Aroclor-1260, were present at a number of locations in the wetland. The wetland investigation is documented in the Phase I Technical Memorandum Wetland Investigation (Montgomery Watson, July 1996) and the Phase II Technical Memorandum Wetland Investigation (Montgomery Watson, February 1997).

Since 1998, MWH has collected an annual sediment sample and associated quality control samples from the GWTP outfall in accordance with the PSVP to help determine if PCB accumulation is occurring at the GWTP discharge location. The annual sediment sample for 2003 was collected on January 13, 2004 from the GWTP outfall location shown on Figure 2.1. The sample was analyzed for PCBs by Compuchem and the data was validated by LDC.

Aroclor-1260 was detected in the sample (Compuchem reported an estimated concentration of 35 µg/kg) but not in the field duplicate sample (Compuchem reported non-detect with a 76 µg/kg detection limit). The sample was given a "J" flag by Compuchem, indicating that the result was detected below the reporting limit and is an estimated concentration. This result is below the 1,000 µg/kg remediation objective used in the August 2001 PCB-Impacted Soil Wetland Excavation. No other PCBs were detected in either the sample or the field duplicate sample.

The estimated concentration of Aroclor-1260 in the sediment sample collected January 2004 was the second detection of Aroclor-1260 since annual sediment sampling began in 1998, though it was detected during the wetland investigation of May 1996. The field duplicate sample was collected as a split sample, however, and indicated a non-detect concentration of Aroclor-1260. The estimated concentration of Aroclor-1260 is also lower than the detection limit of previous annual samples where Aroclor-1260 has not been detected. This variability makes the trending of PCB concentrations at low levels difficult and inaccurate.

There have been no GWTP effluent exceedences of PCBs since the February 2000 compliance sample, demonstrating that there is little likelihood of PCBs accumulating in the wetlands due to GWTP discharge. MWH will continue to collect annual sediment samples from the GWTP outfall point, according to the PSVP, to monitor for any potential accumulation of PCBs.

A summary of the analytical data for the annual sediment samples, collected in December 1998, February 2000, August 2001, June 2002, and January 2004 are summarized in Table 2.3. Analytical data for the January 2004 sample are included in Appendix B.

2.4 CATALYTIC OXIDIZER/SCRUBBER SAMPLING AND ANALYSIS

MWH began eight initial rounds of off-gas sampling of the catalytic oxidizer/scrubber described in the PSVP (MWH, April 1997) during April 2002. The eight rounds of sampling were completed during the third quarter of 2002. One sample was collected in October 2002 to verify the continued performance of the system. The off-gas was also sampled in December 2002 after repairs were made to the catalytic oxidizer/scrubber unit to ensure the unit was working properly. As discussed in the *Progress Report - November 2002 Activities* dated December 9, 2002, the off-gas sample from the catalytic oxidizer/scrubber will be sampled annually, in accordance with IDEM regulations and the PSVP. However, since the vapors generated by the GWTP are being treated by Therm Ox 2 and the catalytic oxidizer is

not being operated, annual samples of the catalytic oxidizer will only be collected if the unit operates within that year.

3.0 ISVE SYSTEM MONITORING

3.1 THERMAL OXIDIZER OFF-GAS SAMPLING

In May 2003, a second thermal oxidizer/scrubber (therm ox) unit was installed at the Site. The unit was manufactured by Global Engineering (Global) and is designated as Therm Ox 2. Therm Ox 2 was installed at the GWTP to treat the vapor collected by the SBPA and Off-Site Area ISVE system. Beginning in the third quarter of 2003, vapors from the SBPA ISVE system were treated by the new unit. Monthly compliance sampling of Therm Ox 2 began in July 2003 when the system was fully operational. In September 2003, the vapors from both the Off-Site Area ISVE and the SBPA ISVE systems were treated by Therm Ox 2. Beginning in October 2003, Ryan Construction, Inc. began reconfiguring the scrubber component of the thermal oxidizer/scrubber unit manufactured by Durr Engineering and designated as Therm Ox 1 in order to improve the performance of the unit. The reconfiguration of the unit was completed on December 26th and the unit was brought online on December 29th to treat vapors from the SBPA ISVE system. Monitoring of the unit indicated that there were minor leaks in the scrubber. Therefore, Therm Ox 1 was taken offline on January 5th and vapors from both systems were directed to Therm Ox 2. In the first quarter of 2004, compliance samples were collected on January 8th, January 16th, February 5th, and March 4th from Therm Ox 2.

Influent and effluent off-gas samples were collected directly from sampling taps on the influent pipe to the thermal oxidizer and the discharge stack of the scrubber. One influent sample (labeled IN1) and one effluent sample (EF1) were collected. A duplicate influent sample (IN2) was also collected. The samples were collected to comply with the PSVP and QAPP and in accordance with laboratory guidelines. The VOC samples were collected using a summa canister and the SVOC samples were collected in sorbent tubes.

Sampling Frequency Schedule – ISVE System

| | |
|--------------|--|
| Startup | Weekly for a four week period |
| Post-Startup | Monthly in accordance with the IDEM Air Permit Equivalency |

Following sample collection, the SVOC sample containers were maintained at or below 4°C in coolers. Chain-of-Custody forms were prepared to track the transfer of samples from the treatment system to the laboratories for extraction and analysis. In accordance with the approved QAPP, the off-gas samples were analyzed by the following analytical methods:

| <u>Parameter</u> | <u>Analytical Method</u> |
|-------------------------|---------------------------------|
| VOCs | TO-14 |
| SVOCs | TO-13 |

3.2 SAMPLING RESULTS

The influent and effluent off-gas data summarized in Tables 3.1 and 3.2, verify that the off-gas from the thermal oxidizer was less than the IDEM discharge limit of three pounds of VOCs per hour for January, February, and March. For example, the VOC discharge reported from the March 4, 2004 sample was 0.06 pounds per hour, approximately two percent of the discharge limit. The analytical data sheets for the compliance samples are provided in Appendix C.

In addition to the off-gas data collected during the first quarter, MWH also collected off-gas samples from the Off-Site ISVE system and the SBPA ISVE system influent lines. This data was collected in order to monitor the performance of these systems. The data from this monitoring is summarized in Tables 3.3 and 3.4.

Air Toxics Laboratories of Folsom, California analyzed the samples. The analytical results are summarized in Tables 3.1 and 3.2. MWH performed data validation in accordance with the QAPP and the National Functional Guidelines for Organic/Inorganic Data Review. Validation qualifiers are listed in Tables 3.1 and 3.2 and are written in the margin of the analytical data sheets provided in Appendix C.

3.2 ISVE SYSTEM MONITORING

Performance monitoring of the ISVE system was conducted in accordance with the PSVP (Montgomery Watson, June 1999). Extracted vapor flow rates and vacuums at individual ISVE wells and headers were collected on a routine basis. Additionally, VOC concentrations were measured at individual wells and headers using a flame/photo ionization detector (FID/PID).

The information collected during performance monitoring is used to evaluate and optimize the ISVE system. Data collected from the Off-Site ISVE system during the first quarter of 2004 is presented in Tables 3.5 and 3.6. Data that was collected from the SBPA ISVE system during the first quarter of 2004 is presented in Tables 3.7 and 3.8.

4.0 GWTP TREATMENT SYSTEM PROCESS MODIFICATIONS

Due to the exceedence of methylene chloride detected in the December 2003 compliance sample, the GWTP was placed in recirculation mode on January 23rd. The granular activated carbon (GAC) vessels were changed out on February 3rd. The GWTP was placed in normal operating mode on February 10th after sampling indicated no exceedences.

On February 24th, installation of a Plexi-Glass cover on the lamella clarifier was completed. The cover was installed to contain vapors emanating from the clarifier. The vapors captured by the cover are being treated by Therm Ox 2.

5.0 ISVE PROCESS MODIFICATION

Reconfiguration of Therm Ox 1 was completed in December 2003. This reconfiguration was completed in order to optimize the performance of the unit. The unit operated intermittently during January and the beginning of February. Further inspections of Therm Ox 1 indicated small holes had formed in the walls of the scrubber. On March 1, Therm Ox 1 was disassembled with a crane in order to further inspect and repair the unit.

The SBPA ISVE system was shut down on January 30th so that the water level in this area could stabilize and the water levels in the On-Site Area could be gauged without the effects of the ISVE system. In addition to the water level gauging performed on February 10th and 11th, the wells were tested to measure the amount of vapor that could be extracted from each well. The test indicated that several wells had a high resistance to vapor extraction. Therefore, the ISVE wells, the DPE wells, and the air sparge points were jetted and vacuumed during the week of March 29th. The retest results of the system after the well cleaning will be included in the monitoring report for the second quarter of 2004.

6.0 PGCS AND BWES GAUGING ACTIVITIES

The PGCS groundwater extraction trenches were operated in "auto" mode during the first quarter of 2004 during operational periods of the GWTP. In "auto" mode, the PGCS extraction wells pump continuously unless there is a high water level in Aeration Equalization Tank (T-102) or a low water level in individual extraction wells. This mode is used to control the flowrate through the treatment system while at the same time creating an inward gradient along the PGCS trench. The GWTP also received influent from the On-Site and Off-Site components of the BWES and the SBPA DPE wells during the first quarter of 2004.

In accordance with the PSVP for the Site, a discussion on the effect of the PGCS and BWES on the water table near the Site is presented in each quarterly monitoring report. This section summarizes the groundwater elevations at the site during January, February, and March 2004. Groundwater elevation measurements were collected throughout the Site on March 15, 2004 as part of the groundwater monitoring program. The groundwater elevations and resulting contours outside the barrier wall are listed in Table 6.1 and shown on Figure 6.1.

The barrier wall was constructed to contain a contaminated zone under the Site, and the BWES was installed to maintain the groundwater levels within the barrier wall and dewater the Site for the ISVE system. Piezometers were installed in pairs, one piezometer of each pair on either side of the barrier wall, spaced along the barrier wall alignment. This allows measurement and tracking of water levels in order to ensure that the barrier wall is serving its designed function.

Table 6.1, BWES Water Level and Piezometer Pairs, presents the groundwater elevations inside and outside the barrier wall on March 15, 2004. They are illustrated on Figure 6.2. The groundwater elevation measurements were 3.16 to 6.63 feet higher outside the barrier wall. The data demonstrate that the barrier wall is successfully performing the intended function of isolating and protecting the groundwater outside the barrier wall from the known source areas of the Site inside the barrier wall. MWH will continue to collect regular water level measurements across the Site as required in the PSVP.

As part of the optimization of the GWTP and BWES upgrades, MWH began active dewatering of the Off-Site Area through increased groundwater pumping rates on September 25, 2001. Active dewatering of the SBPA began on February 11, 2003 with the addition of the DPE wells. To keep track of the dewatering progress inside the barrier wall, water levels were collected from the various piezometers and air sparge (AS) wells on a regular basis, as shown in Table 6.2. Water levels regularly were measured at seven piezometers in the On-Site Area throughout the quarter (P29, P31, P32, P36, P49, P-106, and P-108) and at seven piezometers and three air sparge wells in the Off-Site Area (P96, P110, P112, P113, P114, P116, P118, AS-7, AS-8, and AS-9). The water level data from these piezometers and AS wells are depicted graphically on Figures 6.3 and 6.4, which also reference the target water elevations for each area.

In August 2003, the GWTP was struck by lightning, damaging some of the control and communication systems and shutting the GWTP down. The GWTP was brought back online shortly after being struck by lightning at a reduced flowrate while repairs were being made. Towards the end of August, a high turbidity level in the effluent was observed, therefore, the GWTP was placed into recirculation mode until the source of the turbidity was identified. The turbidity was determined to be caused by floating microbes from the activated sludge plant which had fouled the GAC units. The GWTP was put back into normal operating mode at the end of September. In addition, the GWTP was operated in recirculation mode for a few weeks during the first quarter of 2004 due to the methylene chloride effluent exceedence. Because of the intermittent operation of the GWTP during the third quarter of 2003 and the first quarter of 2004, the groundwater elevations rose in both areas. The water levels in both areas are on average slightly higher than in previous quarters. MWH believes that the current dewatering effort is sufficient to lower the groundwater levels in the Off-Site Area and the SBPA to their respective target elevations

7.0 SYSTEM OPERATION

The GWTP operated as designed for approximately 80 percent of the first quarter of 2004 (based on days of operation). The system was placed in recirculation mode on January 23rd due to the exceedence of the methylene chloride discharge limit noted in the December 2003 compliance sample and the subsequent resamples collected in January. The GWTP was placed in normal operation on February 10th after sample results indicated that the effluent met all the discharge requirements. The system drew influent from the On-Site Area BWES, the Off-Site Area BWES, and the PGCS.

The Off-Site Area ISVE system continued to operate as designed for approximately 100 percent of the first quarter of 2004 (based on days of operation). The SBPA ISVE system continued to operate as designed for approximately 56 percent of the first quarter of 2004 (based on days of operation). The system was shut down on January 30th so that the water levels in the On-Site area would equilibrate before they were measured on February 10th and 11th. The system was brought back online on March 11th. The wells were jetted and vacuumed to remove accumulation in the wells during the week of March 29th.

8.0 REFERENCE

1. *Performance Standard Verification Plan, ACS NPL Site, Montgomery Watson, June 1999.*
2. *Phase I Technical Memorandum Wetland Investigation, ACS NPL Site, Montgomery Watson, July 1996.*
3. *Phase II Technical Memorandum Wetland Investigation, ACS NPL Site, Montgomery Watson, February 1997.*
4. *Quality Assurance Project Plan, ACS NPL Site, Montgomery Watson, March 2001.*
5. *U.S. EPA Specifications and Guidance for Obtaining Contaminant-Free Sample Containers, United States Environmental Protection Agency, 1992.*

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Tables



MWH

Table 2.1
Groundwater Treatment System Effluent Discharge Limits
American Chemical Service NPL Site
Griffith, Indiana

| Groundwater Quality Parameter | Effluent Standard (Limit) |
|---|----------------------------------|
| General Water Quality Parameters | |
| PH | 6 - 9 S.U. |
| BOD-5 | 30 mg/L |
| TSS | 30 mg/L |
| Inorganics | |
| Arsenic | 50 µg/L |
| Beryllium | NE |
| Cadmium | 4.1 µg/L |
| Manganese | NE |
| Mercury | 0.02 µg/L (w/DL = 0.64) |
| Selenium | 8.2 µg/L |
| Thallium | NE |
| Zinc | 411 µg/L |
| Volatile Organics | |
| Acetone | 6,800 µg/L |
| Benzene | 5 µg/L |
| 2-Butanone | 210 µg/L |
| Chloromethane | NE |
| 1,4 - Dichlorobenzene | NE |
| 1,1 - Dichloroethane | NE |
| 1,2 - Dichloroethene - cis | 70 µg/L |
| Ethylbenzene | 34 µg/L |
| Methylene chloride | 5 µg/L |
| Tetrachloroethene | 5 µg/L |
| Trichloroethene | 5 µg/L |
| Vinyl chloride | 2 µg/L |
| 4 - Methyl - 2 - pentanone | 15 µg/L |
| Semi-Volatile Organics | |
| bis(2 - Chloroethyl) ether | 9.6 µg/L |
| bis(2 - Ethylhexyl) phthalate | 6 µg/L |
| Isophorone | 50 µg/L |
| 4 - Methylphenol | 34 µg/L |
| Pentachlorophenol | 1 µg/L |
| PCBs | |
| PCBs | 0.00056 µg/L (w/DL = 0.1 to 0.9) |

Notes:

NE = No effluent limit established.

DL = Detection limit

Table 2.2
Summary of Effluent Analytical Results - First Quarter 2004
Groundwater Treatment System
American Chemical Service NPL Site
Griffith, Indiana

| Event Date | Month 81 2/10/2004 | Month 82 3/2/2004 | Effluent Limits | Lab Reporting Limits |
|-------------------------------|-----------------------|----------------------|-----------------------------|----------------------|
| pH | 6 | 7.10 | 6-9 | none |
| TSS | 2.80 | NS | 30 | 10 |
| BOD | ND | NS | 30 | 2 |
| Arsenic | 13.4 /UB | NS | 50 | 3.4 |
| Beryllium | 0.27 B/UB | NS | NE | 0.2 |
| Cadmium | ND | NS | 4.1 | 0.3 |
| Manganese | 98.4 /B | NS | NE | 10 |
| Mercury | ND | NS | 0.02 (w/DL = 0.64) | 0.64 |
| Selenium | 2.0 B/ | NS | 8.2 | 4.3 |
| Thallium | ND | NS | NE | 5.7 |
| Zinc | 37.9 /B | NS | 411 | 1.2 |
| Benzene | ND | ND | 5 | 0.5 |
| Acetone | 1.3 JB/2.5UBJ | ND /UJ | 6,800 | 3 |
| 2-Butanone | 0.89 J/J | ND /UJ | 210 | 3 |
| Chloromethane | ND | ND | NE | 0.5 |
| 1,4-Dichlorobenzene | ND | ND | NE | 0.5 |
| 1,1-Dichloroethane | ND | ND | NE | 0.5 |
| cis-1,2-Dichloroethene | 0.19 J/ | ND | 70 | 0.5 |
| Ethylbenzene | ND | ND | 34 | 0.5 |
| Methylene chloride | 0.12 J/ | 0.21 J/ | 5 | 0.6 |
| Tetrachloroethene | ND | ND | 5 | 0.5 |
| Trichloroethene | ND | ND | 5 | 0.5 |
| Vinyl chloride | ND | ND | 2 | 0.5 |
| 4-Methyl-2-pentanone | ND | ND | 15 | 3 |
| bis (2-Chloroethyl) ether | ND | NS | 9.6 | 9.6 |
| bis(2-Ethylhexyl) - phthalate | ND | NS | 6 | 6 |
| 4 - Methylphenol | ND | NS | 34 | 10 |
| Isophorone | ND | NS | 50 | 10 |
| Pentachlorophenol | ND | NS | 1 | 1 |
| PCB/Aroclor-1016 | ND | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |
| PCB/Aroclor-1221 | ND | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.92* |
| PCB/Aroclor-1232 | ND | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |
| PCB/Aroclor-1242 | ND | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |
| PCB/Aroclor-1248 | ND | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |
| PCB/Aroclor-1254 | ND | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |
| PCB/Aroclor-1260 | ND | NS | 0.00056 (w/DL = 0.1 to 0.9) | 0.5 |

Notes:

Bolded result indicates a exceedence of the discharge limit

pH data is expressed in S.U.

Metals, VOC, SVOC and PCB data is expressed in ug/L

ND = Not detected

NS = This analyte was not sampled or analyzed for

NE = No effluent limit established

* = Approved SW-846 method is incapable of achieving effluent limit.

Suffix Definitions:

_J = Data qualifier added by laboratory

_U = Data qualifier added by data validator

B = Compound is also detected in the blank

J = Result is detected below the reporting limit and is an estimated concentration

UB = Analyte is not detected at or above the indicated concentration due to blank contamination

UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value

UBJ = Analyte is not detected at or above the indicated concentration due to blank contamination, however the calibration was out of range. Therefore the concentration is estimated.

Table 2.3
Summary of Sediment Analytical Results
Groundwater Treatment System
American Chemical Service NPL Site
Griffith, Indiana

| PCB Compound | Results (ug/kg) | | | | | | | | |
|-------------------------------|-----------------|-----------|------------|-------------|-------------|-------------|------------|-----------|-------------|
| | 12/4/1998 | 2/3/2000 | 2/3/00 DUP | 8/21/2001 | 8/21/01 DUP | 6/5/2002 | 6/5/02 DUP | 1/13/2004 | 1/13/04 DUP |
| Aroclor-1016 | ND (33) | ND (59) | ND (79) | ND (62) /UJ | ND (71) | ND (52) /UJ | ND (49) | ND (67) | ND (76) |
| Aroclor-1221 | ND (33) | ND (77) | ND (100) | ND (82) /UJ | ND (92) | ND (67) /UJ | ND (64) | ND (84) | ND (95) |
| Aroclor-1232 | ND (33) | ND (59) | ND (79) | ND (62) /UJ | ND (71) | ND (52) /UJ | ND (49) | ND (67) | ND (76) |
| Aroclor-1242 | ND (33) | ND (41) | ND (55) | ND (43) /UJ | ND (49) /UJ | ND (36) /UJ | ND (34) | ND (42) | ND (48) |
| Aroclor-1248 | ND (33) | ND (41) | ND (55) | ND (43) /UJ | ND (49) /UJ | ND (36) /UJ | ND (34) | ND (42) | ND (48) |
| Aroclor-1254 | ND (33) | 22 J/ | 15 J/ | 73 P/J | 39 JP/J | ND (36) /UJ | ND (34) | ND (42) | ND (48) |
| Aroclor-1260 | ND (33) | ND (59) | ND (79) | ND (62) /UJ | ND (71) /UJ | 41 J/J | ND (49) | 35 J | ND (76) |
| Total PCBs¹ | ND | 22 | 15 | 73 | 39 | 41 | ND | 35 | ND |

Notes:

1. ND () = Compound was not detected. The detection limit is included in parentheses
2. December 4, 1998 sample was analyzed by Quanterra
All other samples were analyzed by Compuchem
3. DUP = Duplicate sample
4. The total PCB value presented here are estimated totals based on estimated concentrations of individual Aroclors

Suffix Definitions:

- _J = Data qualifier added by laboratory
- _V = Data qualifier added by data validator
- J = Result is detected below the reporting limit and is an estimated concentration
- P = The Relative Percent Difference (RPD) between the two GC column values is greater than 25%. The higher value has been reported.
- JP = The Relative Percent Difference (RPD) between the two GC column values is greater than 25%. The higher value has been reported. The concentration is also estimated.
- UJ = Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

Table 3.1
Summary of Thermal Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14) - First Quarter 2004
American Chemical Service NPL Site
Griffith, Indiana

| Compounds | Units | Sampled 1/8/2004 | | | | | | | |
|----------------------------------|-------|------------------|--------------|-------------------|-------------------|------------|---------|------------------------|--|
| | | Therm-Ox 2 | | Therm-Ox 2 | | Therm-Ox 2 | | Destruction Efficiency | |
| | | Influent IN1 | Influent IN2 | Effluent EF1 1450 | Effluent EF1 1500 | Low | High | Average | |
| Method TO-14 | | | | | | | | | |
| 1,1,1-Trichloroethane | ppbv | 59,000 | 61,000 | 480 | 490 | 99.17% | 99.20% | 99.18% | |
| 1,1,2,2-Tetrachloroethane | ppbv | ND U | ND U | ND U | ND U | NC | NC | NC | |
| 1,1,2-Trichloroethane | ppbv | ND U | ND U | ND U | ND U | NC | NC | NC | |
| 1,1-Dichloroethane | ppbv | 8,300 | 8,700 | 88 | 110 | 98.67% | 98.74% | 98.71% | |
| 1,1-Dichloroethene | ppbv | 1,300 | 1,300 | 390 | 500 | 61.54% | 61.54% | 61.54% | |
| 1,2-Dichloroethane | ppbv | 1,200 | 1,400 | 16 | 20 | 98.33% | 98.57% | 98.45% | |
| 1,2-Dichloropropane | ppbv | 710 | 670 J/J | 5.9 J/J | 9.4 | NC | NC | NC | |
| 2-Butanone (Methyl Ethyl Ketone) | ppbv | 13,000 | 14,000 | 160 | 140 | 98.92% | 99.00% | 98.96% | |
| 2-Hexanone | ppbv | ND U | ND U | ND U | ND U | NC | NC | NC | |
| 4-Methyl-2-pentanone | ppbv | 7,000 | 8,200 | 47 | 50 | 99.29% | 99.39% | 99.34% | |
| Acetone | ppbv | 24,000 | 26,000 | 370 | 320 | 98.67% | 98.77% | 98.72% | |
| Benzene | ppbv | 40,000 | 41,000 | 800 | 1,000 | 97.50% | 97.56% | 97.53% | |
| Bromodichloromethane | ppbv | ND U | ND U | 7.3 | ND U | NC | NC | NC | |
| Bromoform | ppbv | ND U | ND U | ND U | ND U | NC | NC | NC | |
| Bromomethane | ppbv | ND U | ND U | ND U | ND U | NC | NC | NC | |
| Carbon Disulfide | ppbv | 3,300 | 1,600 J/J | ND U | 7.2 J/J | NC | NC | NC | |
| Carbon Tetrachloride | ppbv | ND U | ND U | 12 | 2.9 J/J | NC | NC | NC | |
| Chlorobenzene | ppbv | ND U | ND U | 7.2 | 9.7 | NC | NC | NC | |
| Chloroethane | ppbv | 1,200 | 1,100 | 20 | 42 | 96.18% | 96.50% | 96.34% | |
| Chloroform | ppbv | 4,400 | 4,700 | 89 | 71 | 98.39% | 98.49% | 98.44% | |
| Chloromethane | ppbv | ND U | ND U | 58 | 66 | NC | NC | NC | |
| cis-1,2-Dichloroethene | ppbv | 43,000 | 45,000 | 640 | 1,000 | 97.67% | 97.78% | 97.73% | |
| cis-1,3-Dichloropropene | ppbv | ND U | ND U | ND U | ND U | NC | NC | NC | |
| Dibromochloromethane | ppbv | ND U | ND U | ND U | ND U | NC | NC | NC | |
| Ethyl Benzene | ppbv | 18,000 | 18,000 | 160 | 240 | 98.67% | 98.67% | 98.67% | |
| m,p-Xylene | ppbv | 70,000 | 69,000 | 530 | 740 | 98.93% | 98.94% | 98.94% | |
| Methylene Chloride | ppbv | 47,000 | 49,000 | 700 | 740 | 98.43% | 98.49% | 98.46% | |
| o-Xylene | ppbv | 23,000 | 23,000 | 180 | 240 | 98.96% | 98.96% | 98.96% | |
| Styrene | ppbv | ND U | ND U | 57 | 82 | NC | NC | NC | |
| Tetrachloroethene | ppbv | 42,000 | 40,000 | 720 | 850 | 97.88% | 97.98% | 97.93% | |
| Toluene | ppbv | 200,000 | 190,000 | 2,100 | 2,800 | 98.53% | 98.60% | 98.56% | |
| trans-1,2-Dichloroethene | ppbv | ND U | ND U | 150 | 170 | NC | NC | NC | |
| trans-1,3-Dichloropropene | ppbv | ND U | ND U | ND U | ND U | NC | NC | NC | |
| Trichloroethene | ppbv | 32,000 | 34,000 | 500 | 600 | 98.13% | 98.24% | 98.18% | |
| Vinyl Chloride | ppbv | 4,000 | 4,400 | 110 | 180 | 95.50% | 95.91% | 95.70% | |
| Total | ppbv | 642,410 | 642,070 | 8,397.4 | 10,480.2 | 98.37 % | 98.37 % | 98.37 % | |
| Total | Ib/hr | 23.94 | 23.91 | 0.31 | 0.38 | 98.41 % | 98.41 % | 98.41 % | |

Table 3.1
Summary of Thermal Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14) - First Quarter 2004
American Chemical Service NPL Site
Griffith, Indiana

| Compounds | Units | Sampled 1/16/2004 | | Sampled 2/5/2004 | | Destruction Efficiency |
|----------------------------------|-------|-------------------|------------|------------------|--------------|------------------------|
| | | Therm-Ox 1 | Therm-Ox 2 | Influent IN1 | Effluent EF1 | |
| Method TO-14 | | | | | | |
| 1,1,1-Trichloroethane | ppbv | 460 | | 33,000 | 140 | 99.58% |
| 1,1,2,2-Tetrachloroethane | ppbv | ND | U | ND | U | NC |
| 1,1,2-Trichloroethane | ppbv | ND | U | ND | U | NC |
| 1,1-Dichloroethane | ppbv | 56 | | 4,400 | 32 | 99.27% |
| 1,1-Dichloroethene | ppbv | 89 | | 4,900 | 310 | 93.67% |
| 1,2-Dichloroethane | ppbv | 17 | | 1,200 | 13 | 98.92% |
| 1,2-Dichloropropane | ppbv | 5.3 | J/J | ND | U | ND |
| 2-Butanone (Methyl Ethyl Ketone) | ppbv | 180 | | 13,000 | 110 | 99.15% |
| 2-Hexanone | ppbv | ND | U | ND | U | ND |
| 4-Methyl-2-pentanone | ppbv | 51 | | 7,900 | 36 | 99.54% |
| Acetone | ppbv | 350 | | 17,000 | 280 | 98.35% |
| Benzene | ppbv | 520 | | 26,000 | 550 | 97.88% |
| Bromodichloromethane | ppbv | ND | U | ND | U | ND |
| Bromoform | ppbv | ND | U | ND | U | ND |
| Bromomethane | ppbv | ND | U | ND | U | ND |
| Carbon Disulfide | ppbv | ND | U | ND | U | ND |
| Carbon Tetrachloride | ppbv | ND | U | ND | U | ND |
| Chlorobenzene | ppbv | 3.4 | J/J | ND | U | ND |
| Chloroethane | ppbv | ND | U | ND | U | ND |
| Chloroform | ppbv | 34 | | 2,000 | 18 | 99.10% |
| Chloromethane | ppbv | 11 | J/J | ND | U | 23 |
| cis-1,2-Dichloroethene | ppbv | 96 | | 5,600 | 80 | 98.57% |
| cis-1,3-Dichloropropene | ppbv | ND | U | ND | U | ND |
| Dibromochloromethane | ppbv | ND | U | ND | U | NC |
| Ethyl Benzene | ppbv | 140 | | 17,000 | 88 | 99.48% |
| m,p-Xylene | ppbv | 530 | | 72,000 | 270 | 99.63% |
| Methylene Chloride | ppbv | 470 | | 29,000 | 380 | 98.69% |
| o-Xylene | ppbv | 170 | | 25,000 | 85 | 99.66% |
| Styrene | ppbv | 51 | | ND | U | 62 |
| Tetrachloroethene | ppbv | 530 | | 28,000 | 390 | 98.61% |
| Toluene | ppbv | 1,900 | | 150,000 | 1,100 | 99.27% |
| trans-1,2-Dichloroethene | ppbv | 21 | J/J | ND | U | ND |
| trans-1,3-Dichloropropene | ppbv | ND | U | ND | U | NC |
| Trichloroethene | ppbv | 380 | | 20,000 | 260 | 98.70% |
| Vinyl Chloride | ppbv | 22 | | ND | U | 60 |
| Total | ppbv | 6,087 | | 456,000 | 4,287 | 99.06% |
| Total | lb/hr | 0.1 | | 7.9 | 0.07 | 99.11% |

Table 3.1
Summary of Thermal Oxidizer Off-Gas Analytical Results for VOCs (Method TO-14) - First Quarter 2004
American Chemical Service NPL Site
Griffith, Indiana

| Compounds | Units | Sampled 3/4/2004 | | | | | |
|----------------------------------|--------------|------------------|------------|------------|------------------------|--------|--------|
| | | Therm-Ox 2 | Therm-Ox 2 | Therm-Ox 2 | Destruction Efficiency | | |
| Influent IN1 | Influent IN2 | Effluent EF1 | High | Low | Average | | |
| Method TO-14 | | | | | | | |
| 1,1,1-Trichloroethane | ppbv | 21,000 | 21,000 | 160 | 99.24% | 99.24% | 99.24% |
| 1,1,2,2-Tetrachloroethane | ppbv | ND U | ND U | ND U | NC | NC | NC |
| 1,1,2-Trichloroethane | ppbv | 83 J/J | 97 J/J | 1.4 J/J | NC | NC | NC |
| 1,1-Dichloroethane | ppbv | 2,900 | 2,800 | 31 | 98.89% | 98.93% | 98.91% |
| 1,1-Dichloroethene | ppbv | 250 J/J | 210 J/J | 200 | NC | NC | NC |
| 1,2-Dichloroethane | ppbv | 900 | 840 | 14 | 98.33% | 98.44% | 98.39% |
| 1,2-Dichloropropane | ppbv | ND U | 270 J/J | 2.4 J/J | NC | NC | NC |
| 2-Butanone (Methyl Ethyl Ketone) | ppbv | 7,700 | 7,500 | 92 | 98.77% | 98.81% | 98.79% |
| 2-Hexanone | ppbv | ND U | ND U | ND U | NC | NC | NC |
| 4-Methyl-2-pentanone | ppbv | 4,600 | 4,500 | 37 | 99.18% | 99.20% | 99.19% |
| Acetone | ppbv | 10,000 | 10,000 | 230 | 97.70% | 97.70% | 97.70% |
| Benzene | ppbv | 21,000 | 21,000 | 530 | 97.48% | 97.48% | 97.48% |
| Bromodichloromethane | ppbv | ND U | ND U | ND U | NC | NC | NC |
| Bromoform | ppbv | ND U | ND U | ND U | NC | NC | NC |
| Bromomethane | ppbv | ND U | ND U | ND U | NC | NC | NC |
| Carbon Disulfide | ppbv | ND U | ND U | 2.3 J/J | NC | NC | NC |
| Carbon Tetrachloride | ppbv | ND U | ND U | ND U | NC | NC | NC |
| Chlorobenzene | ppbv | ND U | ND U | 2.8 | NC | NC | NC |
| Chloroethane | ppbv | 480 | 450 | 5.9 | 98.69% | 98.77% | 98.73% |
| Chloroform | ppbv | 1,200 | 1,100 | 15 | 98.64% | 98.75% | 98.69% |
| Chloromethane | ppbv | ND U | ND U | 13 | NC | NC | NC |
| cis-1,2-Dichloroethene | ppbv | 5,200 | 4,900 | 110 | 97.76% | 97.88% | 97.82% |
| cis-1,3-Dichloropropene | ppbv | ND U | ND U | 0.35 J/J | NC | NC | NC |
| Dibromochloromethane | ppbv | ND U | ND U | ND U | NC | NC | NC |
| Ethyl Benzene | ppbv | 10,000 | 10,000 | 89 | 99.11% | 99.11% | 99.11% |
| m,p-Xylene | ppbv | 45,000 | 44,000 | 320 | 99.27% | 99.29% | 99.28% |
| Methylene Chloride | ppbv | 17,000 | 16,000 | 280 | 98.25% | 98.35% | 98.30% |
| o-Xylene | ppbv | 15,000 | 15,000 | 110 | 99.27% | 99.27% | 99.27% |
| Styrene | ppbv | ND U | ND U | 51 | NC | NC | NC |
| Tetrachloroethene | ppbv | 16,000 | 16,000 | 330 | 97.94% | 97.94% | 97.94% |
| Toluene | ppbv | 81,000 | 80,000 | 960 | 98.80% | 98.81% | 98.81% |
| trans-1,2-Dichloroethene | ppbv | ND U | ND U | 14 | NC | NC | NC |
| trans-1,3-Dichloropropene | ppbv | ND U | ND U | ND U | NC | NC | NC |
| Trichloroethene | ppbv | 12,000 | 12,000 | 220 | 98.17% | 98.17% | 98.17% |
| Vinyl Chloride | ppbv | 210 J/J | 190 J/J | 42 | NC | NC | NC |
| Total | ppbv | 271,523 | 267,857 | 3,863.15 | 98.56% | 98.58% | 98.57% |
| Total | lb/hr | 4.6 | 4.54 | 0.06 | 98.68% | 98.70% | 98.69% |

Notes:

J - Laboratory data qualifier

J_ - Data validation qualifier

ND - Non-detect

NC - Not calculated

ppbv - parts per billion volume

lb/hr - pounds per hour

Destruction efficiencies were not calculated if the either influent samples or the effluent sample was estimated. Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Destruction efficiency for 1/8/2004 sample was calculated using the effluent when the thermal oxidizer unit was operated at 1500°F (EF1 1500).

The total concentration and mass loading were calculated using all detected concentrations including estimated detections (denoted with J or UJ qualifiers).

1/8/04 VOCs in lb/hr calculated based on Offsite: 1029 scfm, Onsite: 1180 scfm (1/13/04).

2/5/04 VOCs in lb/hr calculated based on Offsite: 1029 scfm (1/13/04).

3/4/04 VOCs in lb/hr calculated based on Offsite: 1008 scfm (3/18/04).

Qualifiers:

J - Result is estimated

U - below reported quantitation limit

Table 3.2
Summary of Thermal Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13) - First Quarter 2004
American Chemical Service NPL Site, Griffith, Indiana

| | | Sampled 1/8/2004 | | | | | | | | |
|-----------------------------|-------|------------------|--------------|-------------------|-------------------|-----------|---------------|---------------|------------------------|----|
| | | Therm-Ox 2 | | | Therm-Ox 2 | | Therm-Ox 2 | | Destruction Efficiency | |
| Compounds | Units | Influent IN1 | Influent IN2 | Effluent EF1 1450 | Effluent EF1 1500 | Low | High | Average | | |
| Method TO-13 | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | µg | 0.55 | J/J | ND U | ND U | ND U | NC | NC | NC | NC |
| 1,2-Dichlorobenzene | µg | 67 | J/J | 33 | ND U | ND U | NC | NC | NC | NC |
| 1,3-Dichlorobenzene | µg | 3.2 | J/J | 1.5 | ND U | ND U | NC | NC | NC | NC |
| 1,4-Dichlorobenzene | µg | 11 | J/J | 5.4 | ND U | ND U | NC | NC | NC | NC |
| 2,4,5-Trichlorophenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2,4,6-Trichlorophenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2,4-Dichlorophenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2,4-Dimethylphenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2,4-Dinitrophenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2,4-Dinitrotoluene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2,6-Dinitrotoluene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2-Chloronaphthalene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2-Chlorophenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2-Methylnaphthalene | µg | 14 | J/J | 7.8 | ND U | ND U | NC | NC | NC | NC |
| 2-Methylphenol (o-Cresol) | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2-Nitroaniline | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 2-Nitrophenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 3,3'-Dichlorobenzidine | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 3-Nitroaniline | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 4,6-Dinitro-2-methylphenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 4-Bromophenyl-phenyl Ether | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 4-Chloro-3-methylphenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 4-Chloroaniline | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 4-Chlorophenyl-phenyl Ether | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 4-Methylphenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 4-Nitroaniline | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| 4-Nitrophenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Acenaphthene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Acenaphthylene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Anthracene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Benzo(a)anthracene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Benzo(a)pyrene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Benzo(b)fluoranthene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Benzo(g,h,i)perylene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Benzo(k)fluoranthene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| bis(2-Chloroethoxy) Methane | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| bis(2-Chloroethyl) Ether | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| bis(2-Ethylhexyl)phthalate | µg | 0.63 | J/JB | ND U | 0.63 J/JB | 0.62 J/JB | NC | NC | NC | NC |
| Butylbenzylphthalate | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Chrysene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Dibenz(a,h)anthracene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Dibenzofuran | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Diethylphthalate | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Dimethylphthalate | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| di-n-Butylphthalate | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Di-n-Octylphthalate | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Fluoranthene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Fluorene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Hexachlorobenzene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Hexachlorobutadiene | µg | 2.7 | J/J | 1.4 | ND U | ND U | NC | NC | NC | NC |
| Hexachlorocyclopentadiene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Hexachloroethane | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Indeno[1,2,3-c,d]pyrene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Isophorone | µg | 8.5 | J/J | 4.2 | ND U | ND U | NC | NC | NC | NC |
| Naphthalene | µg | 50 | J/J | 31 | ND U | ND U | NC | NC | NC | NC |
| Nitrobenzene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| N-Nitroso-di-n-propylamine | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| N-Nitrosodiphenylamine | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Pentachlorophenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Phenanthrene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Phenol | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Pyrene | µg | ND | U/R | ND U | ND U | ND U | NC | NC | NC | NC |
| Total | µg | 157.58 | | 84.3 | 0.63 | 0.62 | 99.26% | 99.61% | 99.44% | |

Table 3.2
Summary of Thermal Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13) - First Quarter 2004
American Chemical Service NPL Site, Griffith, Indiana

| Compounds | Units | Sampled 1/16/2004 | | Sampled 2/05/2004 | | Destruction Efficiency | |
|-----------------------------|-------|----------------------------|----------------------------|---------------------------------|---------|------------------------|------|
| | | Therm-Ox 1 Effluent EF1 | Therm-Ox 2 Influent IN1 | Therm-Ox 2 Effluent EF1 1450 | Low | | |
| Method TO-13 | | | | | | | |
| 1,2,4-Trichlorobenzene | µg | ND | U | 0.58 J/J | ND | U | NC |
| 1,2-Dichlorobenzene | µg | 0.78 | J/J | 39 | ND | U | 100% |
| 1,3-Dichlorobenzene | µg | ND | U | 1.4 | ND | U | 100% |
| 1,4-Dichlorobenzene | µg | ND | U | 5.2 | ND | U | 100% |
| 2,4,5-Trichlorophenol | µg | ND | U | ND | ND | U | NC |
| 2,4,6-Trichlorophenol | µg | ND | U | ND | ND | U | NC |
| 2,4-Dichlorophenol | µg | ND | U | ND | ND | U | NC |
| 2,4-Dimethylphenol | µg | ND | U | ND | ND | U | NC |
| 2,4-Dinitrophenol | µg | ND | U | ND | ND | U | NC |
| 2,4-Dinitrotoluene | µg | ND | U | ND | ND | U | NC |
| 2,6-Dinitrotoluene | µg | ND | U | ND | ND | U | NC |
| 2-Chloronaphthalene | µg | ND | U | ND | ND | U | NC |
| 2-Chlorophenol | µg | ND | U | ND | ND | U | NC |
| 2-Methylnaphthalene | µg | ND | U | 3.6 | ND | U | 100% |
| 2-Methylphenol (o-Cresol) | µg | ND | U | ND | ND | U | NC |
| 2-Nitroaniline | µg | ND | U | ND | ND | U | NC |
| 2-Nitrophenol | µg | ND | U | ND | ND | U | NC |
| 3,3'-Dichlorobenzidine | µg | ND | U | ND | ND | U | NC |
| 3-Nitroaniline | µg | ND | U | ND | ND | U | NC |
| 4,6-Dinitro-2-methylphenol | µg | ND | U | ND | ND | U | NC |
| 4-Bromophenyl-phenyl Ether | µg | ND | U | ND | ND | U | NC |
| 4-Chloro-3-methylphenol | µg | ND | U | ND | ND | U | NC |
| 4-Chloroaniline | µg | ND | U | ND | ND | U | NC |
| 4-Chlorophenyl-phenyl Ether | µg | ND | U | ND | ND | U | NC |
| 4-Methylphenol | µg | ND | U | ND | ND | U | NC |
| 4-Nitroaniline | µg | ND | U | ND | ND | U | NC |
| 4-Nitrophenol | µg | ND | U | ND | ND | U | NC |
| Acenaphthene | µg | ND | U | ND | ND | U | NC |
| Acenaphthylene | µg | ND | U | ND | ND | U | NC |
| Anthracene | µg | ND | U | ND | ND | U | NC |
| Benzo(a)anthracene | µg | ND | U | ND | ND | U | NC |
| Benzo(a)pyrene | µg | ND | U | ND | ND | U | NC |
| Benzo(b)fluoranthene | µg | ND | U | ND | ND | U | NC |
| Benzo(g,h,i)perylene | µg | ND | U | ND | ND | U | NC |
| Benzo(k)fluoranthene | µg | ND | U | ND | ND | U | NC |
| bis(2-Chloroethoxy) Methane | µg | ND | U | ND | ND | U | NC |
| bis(2-Chloroethyl) Ether | µg | ND | U | ND | ND | U | NC |
| bis(2-Ethylhexyl)phthalate | µg | 3.9 | J/J | ND | ND | U | NC |
| Butylbenzylphthalate | µg | ND | U | 1.9 J/J | 1.6 J/J | NC | |
| Chrysene | µg | ND | U | ND | ND | U | NC |
| Dibenz(a,h)anthracene | µg | ND | U | ND | ND | U | NC |
| Dibenzofuran | µg | ND | U | ND | ND | U | NC |
| Diethylphthalate | µg | ND | U | ND | ND | U | NC |
| Dimethylphthalate | µg | ND | U | ND | ND | U | NC |
| di-n-Butylphthalate | µg | ND | U | ND | ND | U | NC |
| Di-n-Octylphthalate | µg | ND | U | ND | ND | U | NC |
| Fluoranthene | µg | ND | U | ND | ND | U | NC |
| Fluorene | µg | ND | U | ND | ND | U | NC |
| Hexachlorobenzene | µg | ND | U | ND | ND | U | NC |
| Hexachlorobutadiene | µg | ND | U | 1.4 | ND | U | 100% |
| Hexachlorocyclopentadiene | µg | ND | U | ND | ND | U | NC |
| Hexachloroethane | µg | ND | U | ND | ND | U | NC |
| Indeno(1,2,3-c,d)pyrene | µg | ND | U | ND | ND | U | NC |
| Isophorone | µg | ND | U | 7.2 | ND | U | 100% |
| Naphthalene | µg | 0.63 | J/J | 22 | ND | U | 100% |
| Nitrobenzene | µg | ND | U | ND | ND | U | NC |
| N-Nitroso-di-n-propylamine | µg | ND | U | ND | ND | U | NC |
| N-Nitrosodiphenylamine | µg | ND | U | ND | ND | U | NC |
| Pentachlorophenol | µg | ND | U | ND | ND | U | NC |
| Phenanthrene | µg | ND | U | ND | ND | U | NC |
| Phenol | µg | ND | U | ND | ND | U | NC |
| Pyrene | µg | ND | U | ND | ND | U | NC |
| Total | µg | 5.31 | | 82.28 | 1.6 | 98.06 % | |

Table 3.2
Summary of Thermal Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13) - First Quarter 2004
American Chemical Service NPL Site, Griffith, Indiana

| | | Sampled 3/04/2004 | | | | | | | | |
|-----------------------------|-------|-------------------|--------------|--------------|-----|------------|------|------------------------|---------|---------|
| | | Therm-Ox 2 | | Therm-Ox 2 | | Therm-Ox 2 | | Destruction Efficiency | | |
| Compounds | Units | Influent IN1 | Influent IN2 | Effluent EF1 | | Low | High | Average | | |
| Method TO-13 | | | | | | | | | | |
| 1,2,4-Trichlorobenzene | µg | ND | U | ND | U | ND | U | NC | NC | |
| 1,2-Dichlorobenzene | µg | 7 | | 20 | | ND | U | 100% | 100% | |
| 1,3-Dichlorobenzene | µg | ND | U | 0.73 | J/J | ND | U | NC | NC | |
| 1,4-Dichlorobenzene | µg | 0.95 | J/J | 2.7 | | ND | U | NC | NC | |
| 2,4,5-Trichlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2,4,6-Trichlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2,4-Dichlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2,4-Dimethylphenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2,4-Dinitrophenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2,4-Dinitrotoluene | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2,6-Dinitrotoluene | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2-Chloronaphthalene | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2-Chlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2-Methylnaphthalene | µg | 1.8 | | 8.5 | | ND | U | 100% | 100% | |
| 2-Methylphenol (o-Cresol) | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2-Nitroaniline | µg | ND | U | ND | U | ND | U | NC | NC | |
| 2-Nitrophenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| 3,3'-Dichlorobenzidine | µg | ND | U | ND | U | ND | U | NC | NC | |
| 3-Nitroaniline | µg | ND | U | ND | U | ND | U | NC | NC | |
| 4,6-Dinitro-2-methylphenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| 4-Bromophenyl-phenyl Ether | µg | ND | U | ND | U | ND | U | NC | NC | |
| 4-Chloro-3-methylphenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| 4-Chloroaniline | µg | ND | U | ND | U | ND | U | NC | NC | |
| 4-Chlorophenyl-phenyl Ether | µg | ND | U | ND | U | ND | U | NC | NC | |
| 4-Methylphenol | µg | ND | U | 1.1 | J/J | ND | U | NC | NC | |
| 4-Nitroaniline | µg | ND | U | ND | U | ND | U | NC | NC | |
| 4-Nitrophenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| Acenaphthene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Acenaphthylene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Anthracene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Benzo(a)anthracene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Benzo(a)pyrene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Benzo(b)fluoranthene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Benzo(g,h,i)perylene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Benzo(k)fluoranthene | µg | ND | U | ND | U | ND | U | NC | NC | |
| bis(2-Chloroethoxy) Methane | µg | ND | U | ND | U | ND | U | NC | NC | |
| bis(2-Chloroethyl) Ether | µg | ND | U | ND | U | ND | U | NC | NC | |
| bis(2-Ethylhexyl)phthalate | µg | ND | U | ND | U | ND | U | NC | NC | |
| Butylbenzylphthalate | µg | ND | U | ND | U | ND | U | NC | NC | |
| Chrysene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Dibenz(a,h)anthracene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Dibenzofuran | µg | ND | U | ND | U | ND | U | NC | NC | |
| Diethylphthalate | µg | ND | U | ND | U | ND | U | NC | NC | |
| Dimethylphthalate | µg | ND | U | ND | U | ND | U | NC | NC | |
| di-n-Butylphthalate | µg | 0.34 | J/B | 0.41 | J/B | 0.42 | J/B | NC | NC | |
| Di-n-Octylphthalate | µg | ND | U | ND | U | ND | U | NC | NC | |
| Fluoranthene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Fluorene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Hexachlorobenzene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Hexachlorobutadiene | µg | 0.44 | J/J | 1.5 | | ND | U | NC | NC | |
| Hexachlorocyclopentadiene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Hexachloroethane | µg | ND | U | ND | U | ND | U | NC | NC | |
| Indeno[1,2,3-c,d]pyrene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Isophorone | µg | 1.6 | | 5.2 | | ND | U | 100% | 100% | |
| Naphthalene | µg | 7.3 | | 32 | | ND | U | 100% | 100% | |
| Nitrobenzene | µg | ND | U | ND | U | ND | U | NC | NC | |
| N-Nitroso-di-n-propylamine | µg | ND | U | ND | U | ND | U | NC | NC | |
| N-Nitrosodiphenylamine | µg | ND | U | ND | U | ND | U | NC | NC | |
| Pentachlorophenol | µg | ND | U | ND | U | ND | U | NC | NC | |
| Phenanthrene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Phenol | µg | ND | U | 1.9 | J/J | ND | U | NC | NC | |
| Pyrene | µg | ND | U | ND | U | ND | U | NC | NC | |
| Total | µg | 19.43 | | 74.04 | | 0.42 | | 97.84 % | 99.43 % | 98.64 % |

Table 3.2
Summary of Thermal Oxidizer Off-Gas Analytical Results for SVOCs (Method TO-13) - First Quarter 2004
American Chemical Service NPL Site, Griffith, Indiana

Notes:

/ - Laboratory data qualifier

/_ - Data validation qualifier

ND - Non-detect

NC - Not calculated

µg - micrograms

The total concentration was calculated using all detected concentrations including estimated detections (denoted with J or UJ qualifiers).

Destruction efficiencies were not calculated if the either influent samples or the effluent sample was estimated.

Destruction efficiencies were also not calculated if the effluent result exceeded either influent result.

Qualifiers:

J - Result is estimated

U - Below reported quantitation limit

B - The compound was detected in an associated blank

R - Quality control indicates the data is not usable

JB - Analyte is detected in the compliance sample below the reporting limit and is an estimated concentration and the compound is also detected in the method blank resulting in a potential high bias.

Table 3.3
Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data for VOCs (Method TO-14) – First Quarter 2004
American Chemical Services NPL Site
Griffith, Indiana

| Compounds | Units | Sampled 1/08/2004 | | Sampled 2/05/2004 | | Sampled 3/04/2004 | |
|----------------------------------|-------|----------------------|--------------|---------------------|--------------|----------------------|----------------|
| | | Off-Site ISVE System | | On-Site ISVE System | | Off-Site ISVE System | |
| | | Influent IN1 | Influent IN1 | Influent IN1 | Influent IN1 | Influent IN1 | Influent IN1 |
| Method TO-14 | | | | | | | |
| 1,1,1-Trichloroethane | ppbv | 88,000 | | 68,000 | | 51,000 | 28,000 |
| 1,1,2,2-Tetrachloroethane | ppbv | ND | U | ND | U | ND | U |
| 1,1,2-Trichloroethane | ppbv | ND | U | ND | U | ND | U |
| 1,1-Dichloroethane | ppbv | 12,000 | | 11,000 | | 6,700 | 3,400 |
| 1,1-Dichloroethene | ppbv | 1,400 | | 2,200 | | 7,900 | 280 |
| 1,2-Dichloroethane | ppbv | 2,500 | | 700 | | 2,000 | 1,000 |
| 1,2-Dichloropropane | ppbv | 850 | J/J | 940 | | ND | U |
| 2-Butanone (Methyl Ethyl Ketone) | ppbv | 29,000 | | ND | U | 21,000 | 10,000 |
| 2-Hexanone | ppbv | ND | U | ND | U | ND | U |
| 4-Methyl-2-pentanone | ppbv | 13,000 | | 2,600 | J/J | 13,000 | 5,200 |
| Acetone | ppbv | 52,000 | | 7,600 | | 28,000 | 14,000 |
| Benzene | ppbv | 62,000 | | 37,000 | | 40,000 | 19,000 |
| Bromodichloromethane | ppbv | ND | U | ND | U | ND | U |
| Bromoform | ppbv | ND | U | ND | U | ND | U |
| Bromomethane | ppbv | ND | U | ND | U | ND | U |
| Carbon Disulfide | ppbv | 880 | J/J | 860 | J/J | ND | U |
| Carbon Tetrachloride | ppbv | ND | U | ND | U | ND | U |
| Chlorobenzene | ppbv | ND | U | ND | U | ND | U |
| Chloroethane | ppbv | ND | U | 2,500 | | ND | U |
| Chloroform | ppbv | 5,000 | | 5,300 | | 3,200 | 1,500 |
| Chloromethane | ppbv | ND | U | ND | U | ND | U |
| cis-1,2-Dichloroethene | ppbv | 14,000 | | 87,000 | | 8,400 | 4,400 |
| cis-1,3-Dichloropropene | ppbv | ND | U | ND | U | ND | U |
| Dibromochloromethane | ppbv | ND | U | ND | U | ND | U |
| Ethyl Benzene | ppbv | 23,000 | | 14,000 | | 27,000 | 12,000 |
| m,p-Xylene | ppbv | 92,000 | | 50,000 | | 110,000 | 52,000 |
| Methylene Chloride | ppbv | 97,000 | | 26,000 | | 45,000 | 21,000 |
| o-Xylene | ppbv | 29,000 | | 18,000 | | 38,000 | 17,000 |
| Styrene | ppbv | ND | U | ND | U | ND | U |
| Tetrachloroethene | ppbv | 53,000 | | 44,000 | | 43,000 | 20,000 |
| Toluene | ppbv | 310,000 | | 130,000 | | 230,000 | 100,000 |
| trans-1,2-Dichloroethene | ppbv | ND | U | 380 | J/J | ND | U |
| trans-1,3-Dichloropropene | ppbv | ND | U | ND | U | ND | U |
| Trichloroethene | ppbv | 45,000 | | 34,000 | | 31,000 | 16,000 |
| Vinyl Chloride | ppbv | 940 | J/J | 9,600 | | 920 | 160 |
| Total | ppbv | 930,570 | | 551,680 | | 706,120 | 324,940 |
| Total | lb/hr | 15.84 | | 11.41 | | 12.21 | 5.54 |

Notes:

/ - Laboratory data qualifier
/_ - Data validation qualifier
ND - Non-detect
ppbv - parts per billion volume
lb/hr - pounds per hour

Qualifiers:

J - Result is estimated
U - below reported quantitation limit

Table 3.4
Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data for SVOCs (Method TO-13) – First Quarter 2004
American Chemical Services NPL Site
Griffith, Indiana

| Compounds | Units | Sampled 1/8/04 | | Sampled 2/5/04 | | Sampled 3/4/04 | |
|-----------------------------|-------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| | | Off-Site ISVE System | On-Site ISVE System | Off-Site ISVE System | On-Site ISVE System | Off-Site ISVE System | On-Site ISVE System |
| Method TO-13 | | | | | | | |
| 1,2,4-Trichlorobenzene | µg | 0.48 | J/J | ND | U | 0.95 | J/J |
| 1,2-Dichlorobenzene | µg | 31 | | 5 | | 54 | |
| 1,3-Dichlorobenzene | µg | 1.3 | | ND | U | 2.1 | |
| 1,4-Dichlorobenzene | µg | 4.2 | | 0.95 | J/J | 7.3 | |
| 2,4,5-Trichlorophenol | µg | ND | U | ND | U | ND | U |
| 2,4,6-Trichlorophenol | µg | ND | U | ND | U | ND | U |
| 2,4-Dichlorophenol | µg | ND | U | ND | U | ND | U |
| 2,4-Dimethylphenol | µg | ND | U | ND | U | ND | U |
| 2,4-Dinitrophenol | µg | ND | U | ND | U | ND | U |
| 2,4-Dinitrotoluene | µg | ND | U | ND | U | ND | U |
| 2,6-Dinitrotoluene | µg | ND | U | ND | U | ND | U |
| 2-Chloronaphthalene | µg | ND | U | ND | U | ND | U |
| 2-Chlorophenol | µg | ND | U | ND | U | ND | U |
| 2-Methylnaphthalene | µg | 2.6 | | ND | U | 6.4 | |
| 2-Methylphenol (o-Cresol) | µg | ND | U | ND | U | ND | U |
| 2-Nitroaniline | µg | ND | U | ND | U | ND | U |
| 2-Nitrophenol | µg | ND | U | ND | U | ND | U |
| 3,3'-Dichlorobenzidine | µg | ND | U | ND | U | ND | U |
| 3-Nitroaniline | µg | ND | U | ND | U | ND | U |
| 4,6-Dinitro-2-methylphenol | µg | ND | U | ND | U | ND | U |
| 4-Bromophenyl-phenyl Ether | µg | ND | U | ND | U | ND | U |
| 4-Chloro-3-methylphenol | µg | ND | U | ND | U | ND | U |
| 4-Chloroaniline | µg | ND | U | ND | U | ND | U |
| 4-Chlorophenyl-phenyl Ether | µg | ND | U | ND | U | ND | U |
| 4-Methylphenol | µg | ND | U | ND | U | ND | U |
| 4-Nitroaniline | µg | ND | U | ND | U | ND | U |
| 4-Nitrophenol | µg | ND | U | ND | U | ND | U |
| Acenaphthene | µg | ND | U | ND | U | ND | U |
| Acenaphthylene | µg | ND | U | ND | U | ND | U |
| Anthracene | µg | ND | U | ND | U | ND | U |
| Benzo(a)anthracene | µg | ND | U | ND | U | ND | U |
| Benzo(a)pyrene | µg | ND | U | ND | U | ND | U |
| Benzo(b)fluoranthene | µg | ND | U | ND | U | ND | U |
| Benzo(g,h,i)perylene | µg | ND | U | ND | U | ND | U |
| Benzo(k)fluoranthene | µg | ND | U | ND | U | ND | U |
| bis(2-Chloroethoxy) Methane | µg | ND | U | ND | U | ND | U |
| bis(2-Chloroethyl) Ether | µg | ND | U | ND | U | ND | U |
| bis(2-Ethylhexyl)phthalate | µg | 1.5 | J/JB | 1.1 | J/JB | 0.9 | J/J |
| Butylbenzylphthalate | µg | ND | U | ND | U | ND | U |
| Chrysene | µg | ND | U | ND | U | ND | U |
| Dibenz(a,h)anthracene | µg | ND | U | ND | U | ND | U |
| Dibenzofuran | µg | ND | U | ND | U | ND | U |
| Diethylphthalate | µg | ND | U | ND | U | 0.6 | J/J |
| Dimethylphthalate | µg | ND | U | ND | U | ND | U |
| di-n-Butylphthalate | µg | ND | U | ND | U | ND | U |
| Di-n-Octylphthalate | µg | ND | U | ND | U | ND | U |
| Fluoranthene | µg | ND | U | ND | U | ND | U |
| Fluorene | µg | ND | U | ND | U | ND | U |

Table 3.4
Summary of In-Situ Vapor Extraction (ISVE) System Influent Monitoring Data for SVOCs (Method TO-13) – First Quarter 2004
American Chemical Services NPL Site
Griffith, Indiana

| Compounds | Units | Sampled 1/8/04 | | Sampled 2/5/04 | | Sampled 3/4/04 | |
|----------------------------|-------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| | | Off-Site ISVE System | On-Site ISVE System | Off-Site ISVE System | On-Site ISVE System | Off-Site ISVE System | On-Site ISVE System |
| Method TO-13 | | | | | | | |
| Hexachlorobenzene | µg | ND | U | ND | U | ND | U |
| Hexachlorobutadiene | µg | 1.1 | | ND | U | 1.9 | |
| Hexachlorocyclopentadiene | µg | ND | U | ND | U | ND | U |
| Hexachloroethane | µg | ND | U | ND | U | ND | U |
| Indeno(1,2,3-c,d)pyrene | µg | ND | U | ND | U | ND | U |
| Isophorone | µg | 5.5 | | ND | U | 12.0 | |
| Naphthalene | µg | 18 | | 0.98 | J/J | 36 | |
| Nitrobenzene | µg | ND | U | ND | U | ND | U |
| N-Nitroso-di-n-propylamine | µg | ND | U | ND | U | ND | U |
| N-Nitrosodiphenylamine | µg | ND | U | ND | U | ND | U |
| Pentachlorophenol | µg | ND | U | ND | U | ND | U |
| Phenanthrene | µg | ND | U | ND | U | ND | U |
| Phenol | µg | ND | U | ND | U | ND | U |
| Pyrene | µg | ND | U | ND | U | ND | U |
| Total | µg | 65.68 | | 8.03 | | 122.07 | |
| | | | | | | | 109.55 |

Notes:

/ - Laboratory data qualifier

- - Data validation qualifier

ND - Non-detect

µg - micrograms

Qualifiers:

J - Result is estimated

U - below reported quantitation limit

JB - Analyte is detected in the compliance sample below the reporting limit and is an estimated concentration
and the compound is also detected in the method blank resulting in a potential high bias

Table 3.5
Off-Site In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data - First Quarter 2004
American Chemical Services NPL Site
Griffith, Indiana

| Well ID | Date | Flow (cfm) | Vacuum (["] H ₂ O) | VOCs (ppm) | Comments |
|---------|-----------|---------------|--|---------------|----------|
| SVE-03 | 1/13/2004 | 28 | 37 | 390 | |
| | 3/18/2004 | 104 | 41 | 11 | |
| SVE-04 | 1/13/2004 | 39 | 42 | 475 | |
| | 3/18/2004 | 0 | 57 | 10 | |
| SVE-05 | 1/13/2004 | 56 | 36 | 475 | |
| | 3/18/2004 | 48 | 40 | 11 | |
| SVE-11 | 1/13/2004 | - | 35 | 340 | |
| | 3/18/2004 | - | 40 | 11 | |
| SVE-13 | 1/13/2004 | 28 | 32 | 380 | |
| | 3/18/2004 | 0 | 36 | 10 | |
| SVE-16 | 1/13/2004 | 49 | 30 | 645 | |
| | 3/18/2004 | 115 | 34 | 14.5 | |
| SVE-20 | 1/13/2004 | 0 | 42 | 370 | |
| | 3/18/2004 | 0 | 42 | - | |
| SVE-23 | 1/13/2004 | 63 | 32 | 904 | |
| | 3/18/2004 | 116 | 32 | 10.57 | |
| SVE-25 | 1/13/2004 | 107 | 42 | 730 | |
| | 3/18/2004 | 147 | 40 | 10 | |
| SVE-26 | 1/13/2004 | 40 | 32 | 470 | |
| | 3/18/2004 | 39 | 40 | 10.5 | |
| SVE-29 | 1/13/2004 | 63 | 30 | 845 | |
| | 3/18/2004 | 0 | 34 | 11 | |
| SVE-38 | 1/13/2004 | 0 | 39 | 990 | |
| | 3/18/2004 | 0 | 32 | 10 | |
| SVE-39 | 1/13/2004 | 79 | 34 | 630 | |
| | 3/18/2004 | 112 | 36 | 9 | |
| SVE-41 | 1/13/2004 | 0 | 38 | 44 | |
| | 3/18/2004 | 28 | 42 | 10.9 | |

Notes:

"-" = data not collected

cfm = cubic feet per minute

"H₂O = inches of water

ppm = parts per million

VOCs = volatile organic compounds

Table 3.6
Off-Site In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data - First Quarter 2004
American Chemical Services NPL Site
Griffith, Indiana

| Date | KP1 Line Pressure (psia) | KP1 Flow (cfm) | KP1 Vacuum ("H ₂ O) | KP2 Line Pressure (psia) | KP2 Flow (cfm) | KP2 Vacuum ("H ₂ O) | OFCA1 Vacuum ("H ₂ O) | OFCA2 Vacuum ("H ₂ O) | OFCA3 Vacuum ("H ₂ O) | Dilution Flow (cfm) | Blower Influent Line Pressure (psia) | Blower Influent Flow (cfm) | Blower Influent Vacuum ("H ₂ O) |
|-----------|--------------------------------|----------------------|--------------------------------------|--------------------------------|----------------------|--------------------------------------|--|--|--|---------------------------|--|----------------------------------|--|
| 1/13/2004 | 13.5 | - | 38 | 13.8 | 0 | 30 | 34 | 26 | 34 | 0 | 13.4 | 999 | 42 |
| 3/18/2004 | 13.3 | - | 40 | 13.3 | 0 | 39 | 40 | 29 | 36 | 0 | 16.4 | 877 | -46 |

Notes:

"-" = data not collected

cfm = cubic feet per minute

"Hg = inches of mercury

"H₂O = inches of water

ppm = parts per million

VOCs = volatile organic compounds

psia = pounds per square inch, atmosphere

°F = degrees Fahrenheit

Table 3.6
Off-Site In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data - First Quarter 2004
American Chemical Services NPL Site
Griffith, Indiana

| Date | Blower Influent VOC (ppm) | Blower Influent Temperature (°F) | Blower Effluent Line Pressure (psia) | Blower Effluent Flow (cfm) | Blower Effluent Pressure ("H ₂ O) | Blower Effluent VOC (ppm) | Blower Effluent Temperature (°F) | Filter Differential Pressure ("H ₂ O) | Ambient Temperature (°F) | Barometric Pressure ("Hg) | Humidity (%) |
|-----------|---------------------------|----------------------------------|--------------------------------------|----------------------------|--|---------------------------|----------------------------------|--|--------------------------|---------------------------|--------------|
| 1/13/2004 | - | 48 | 15.7 | 1029 | 24.0 | - | 104 | 6.5 | 36 | 30.28 | 56% |
| 3/18/2004 | - | 48 | 15.6 | 1008 | 23.0 | - | 104 | - | 30 | 29.98 | 90% |

Notes:

"-" = data not collected

cfm = cubic feet per minute

"Hg = inches of mercury

"H₂O = inches of water

ppm = parts per million

VOCs = volatile organic compounds

psia = pounds per square inch, atmosphere

°F = degrees Fahrenheit

Table 3.7
SBPA In-Situ Soil Vapor Extraction (ISVE) System Well Monitoring Data - First Quarter 2004
American Chemical Services NPL Site
Griffith, Indiana

| Well ID | Date | Flow (cfm) | Vacuum ("H ₂ O) | VOCs (ppm) | Comments |
|---------|-----------|---------------|-------------------------------|---------------|--|
| SVE-43 | 1/13/2004 | 25 | 100 | 550 | Vac reading actually >100" |
| SVE-44 | 3/17/2004 | 0 | 100 | 525 | |
| SVE-45 | 3/17/2004 | 409 | 100 | 570 | Vac reading actually >100" |
| SVE-46 | 1/13/2004 | 36 | 100 | - | Vac reading actually >100". No VOC reading because of excess purple/red liquid in line. |
| | 3/17/2004 | 0 | 100 | 1143 | Vac reading actually >100". |
| SVE-47 | 1/13/2004 | 11 | 100 | 1470 | Vac reading actually >100" |
| | 3/17/2004 | 72 | 100 | 2000 | Vac reading actually >100" |
| SVE-49 | 1/13/2004 | 0 | 100 | 760 | Vac reading actually >100" |
| | 3/17/2004 | | 100 | NA | |
| SVE-50 | 1/13/2004 | 0 | 100 | 649 | Vac reading actually >100" |
| | 3/17/2004 | 0 | 100 | 2300 | Vac reading actually >100" |
| SVE-51 | 3/17/2004 | 0 | 36 | 490 | |
| SVE-52 | 3/17/2004 | 0 | 100 | 633 | Vac reading actually >100" |
| SVE-53 | 1/13/2004 | 0 | 100 | 680 | Vac reading actually >100" |
| SVE-54 | 3/17/2004 | 0 | 58 | 675 | |
| SVE-55 | 1/13/2004 | 25 | 100 | 1185 | Vac reading actually >100" |
| | 3/17/2004 | - | 76 | 2500 | |
| SVE-56 | 3/17/2004 | 56 | 100 | 760 | |
| SVE-57 | 3/17/2004 | - | 100 | 835 | |
| SVE-58 | 1/13/2004 | 0 | 66 | 691 | Purple liquid/sludge |
| SVE-59 | 3/17/2004 | 0 | 100 | 420 | Vac reading actually >100" |
| SVE-60 | 1/13/2004 | 0 | 66 | 1303 | |
| | 3/17/2004 | 0 | 41 | 1380 | |
| SVE-62 | 3/17/2004 | 0 | 100 | NM | Vac reading actually >100" |
| SVE-63 | 3/17/2004 | 0 | 100 | 760 | Vac reading actually >100" |
| SVE-64 | 3/17/2004 | 72 | 0 | 1100 | |
| SVE-65 | 3/17/2004 | 0 | 92 | 687 | |
| SVE-66 | 3/17/2004 | 0 | 100 | 900 | Vac reading actually >100" |
| SVE-67 | 3/17/2004 | 0 | 0.2 | 830 | |
| SVE-70 | 1/13/2004 | 0 | 67 | 1315 | |
| | 3/17/2004 | 0 | 44 | 1200 | |
| SVE-71 | 1/13/2004 | 0 | 67 | 947 | |
| | 3/17/2004 | 0 | 44 | 1340 | |
| SVE-72 | 1/13/2004 | 0 | 69 | 1222 | |
| | 3/17/2004 | | NM | 405 | |
| SVE-73 | 1/13/2004 | 0 | 66 | 1115 | |
| | 3/17/2004 | 0 | 44 | 1390 | |
| SVE-74 | 1/13/2004 | 17 | 66 | 1210 | |
| | 3/17/2004 | 0 | 46 | 1465 | |
| SVE-76 | 3/17/2004 | 180 | 100 | 1180 | Vac reading actually >100" |
| SVE-77 | 3/17/2004 | 76 | 100 | 618 | Vac reading actually >100" |
| SVE-78 | 3/17/2004 | 45 | 90 | 570 | |
| SVE-79 | 1/13/2004 | 0 | 67 | 770 | |
| | 3/17/2004 | 0 | 20 | 491 | |
| SVE-80 | 1/13/2004 | 0 | 70 | 1025 | |
| | 3/17/2004 | 0 | 30 | 460 | |
| SVE-81 | 1/13/2004 | 0 | 67 | 1830 | |
| | 3/17/2004 | 0 | 45 | 1430 | |
| SVE-82 | 1/13/2004 | 0 | 68 | 1315 | |
| | 3/17/2004 | 0 | 28 | 417 | |
| SVE-83 | 1/13/2004 | 0 | 65 | 1800 | |
| SVE-84 | 1/13/2004 | 0 | 67 | 1400 | |
| SVE-85 | 1/13/2004 | 0 | 67 | 1362 | |
| | 3/17/2004 | 0 | 44 | 776 | |
| SVE-86 | 1/13/2004 | 0 | 66 | 1316 | |
| SVE-88 | 1/13/2004 | 0 | 66 | 2280 | |

Notes:

"-" = data not collected

cfm = cubic feet per minute

"H₂O = inches of water

ppm = parts per million

VOCs = volatile organic compounds

Table 3.8
SBPA In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data - First Quarter 2004
American Chemical Services NPL Site
Griffith, Indiana

| Date | Line Pressure (psia) | Flow (cfm) | Vacuum (["] H ₂ O) | Line Pressure (psia) | Flow (cfm) | Vacuum (["] H ₂ O) | Dilution Flow (cfm) | Blower Influent Line Pressure (psia) | Blower Influent Flow (cfm) | Blower Influent Vacuum (["] H ₂ O) | Blower Influent VOC (ppm) |
|-----------|-------------------------|---------------|--|-------------------------|---------------|--|---------------------------|--|----------------------------------|---|---------------------------------|
| 1/13/2004 | 12.6 | 166 | 64 | 12.6 | 0 | 64 | 0 | 11.3 | 157 | 100 | - |
| 3/17/2004 | 13.2 | 338 | 42 | 13.2 | 0 | 42 | 0 | 11.1 | 346 | 100 | - |

Notes:

"-" = data not collected

cfm = cubic feet per minute

"Hg = inches of mercury

"H₂O = inches of water

ppm = parts per million

VOCs = volatile organic compounds

psia = pounds per square inch, atmosphere

[°]F = degrees Fahrenheit

Table 3.8
SBPA In-Situ Soil Vapor Extraction (ISVE) System Header Monitoring Data - First Quarter 2004
American Chemical Services NPL Site
Griffith, Indiana

| Date | Blower Influent Temperature (°F) | Blower Effluent Line Pressure (psia) | Blower Effluent Flow (cfm) | Blower Effluent Pressure ("H ₂ O) | Blower Effluent VOC (ppm) | Blower Effluent Temperature (°F) | Filter Differential Pressure ("H ₂ O) | Ambient Temperature (°F) | Barometric Pressure ("Hg) | Humidity (%) |
|-----------|----------------------------------|--------------------------------------|----------------------------|--|---------------------------|----------------------------------|--|--------------------------|---------------------------|--------------|
| 1/13/2004 | 35 | 15.1 | 1180 | 6.0 | - | 104 | 8.5 | 36 | 30.28 | 56% |
| 3/17/2004 | 40 | 15.0 | 1239 | 8.0 | - | 90 | NM | 34 | 29.90 | 93% |

Notes:

"-" = data not collected

cfm = cubic feet per minute

"Hg = inches of mercury

"H₂O = inches of water

ppm = parts per million

VOCs = volatile organic compounds

psia = pounds per square inch, atmosphere

°F = degrees Fahrenheit

Table 6.1
Water Table Elevations Across the Barrier Wall and Near the PGCS - First Quarter 2004
American Chemical Service NPL Site
Griffith, Indiana

Upper Aquifer Wells

| Well Designation | Reference Points | | | 3/15/2004 | | Notes | Difference Across Barrier Wall (if applicable) ¹ |
|------------------|------------------|-------|--------|-----------|-----------|-------|---|
| | East | North | TOIC | level | Elevation | | |
| MW11 | 6377 | 7329 | 640.47 | 6.20 | 634.27 | | n/a |
| MW13 | 5050 | 7814 | 634.08 | 3.27 | 630.81 | | n/a |
| MW37 | 5395 | 7976 | 636.78 | 4.65 | 632.13 | | n/a |
| MW46 | 4526 | 7424 | 633.32 | 2.70 | 630.62 | | n/a |
| MW48 | 5669 | 7814 | 636.36 | 4.20 | 632.16 | | n/a |
| MW49 | 5551 | 7650 | 637.00 | 4.87 | 632.13 | | n/a |

Staff Gauges & Piezometers

| Well Designation | Reference Points | | | 3/15/2004 | | Notes | Difference Across Barrier Wall (if applicable) ¹ |
|------------------|------------------|-------|--------|-----------|-----------|------------------|---|
| | East | North | TOSG | level | Elevation | | |
| P23 | 4689 | 7018 | 636.18 | 5.56 | 630.62 | | n/a |
| P25 | 5131 | 7510 | 635.01 | 4.17 | 630.84 | | n/a |
| P26 | 4764 | 7309 | 634.23 | 3.65 | 630.58 | | n/a |
| P27 | 4904 | 7020 | 639.70 | 8.60 | 631.10 | | n/a |
| P28 | 5883 | 7486 | 644.53 | 10.68 | 633.85 | | n/a |
| P32 | 5746 | 7026 | 642.32 | 12.25 | 630.07 | | n/a |
| P40 | 5931 | 7241 | 638.77 | 4.57 | 634.20 | | n/a |
| P41 | 5663 | 7377 | 637.23 | 3.43 | 633.80 | | n/a |
| P49 | 5145 | 6949 | 638.98 | 9.80 | 629.18 | | n/a |
| SG13 | 4819 | 7209 | 631.53 | 4.95 | 630.48 | TOSG = 6.0' mark | n/a |

PGCS Piezometer Sets

| Well Designation | Reference Points | | | 3/15/2004 | | Notes | Difference Across Barrier Wall (if applicable) ¹ |
|------------------|------------------|--------|--------|-----------|-----------|-------|---|
| | East | North | TOC | level | Elevation | | |
| P81 | 5577 | 7581 | 636.19 | 4.04 | 632.15 | | n/a |
| P82 | 5577 | 7572 | 635.77 | 3.61 | 632.16 | | n/a |
| P83 | 5577 | 7561.6 | 635.95 | 3.80 | 632.15 | | n/a |
| P84 | 5322 | 7603 | 634.35 | 3.37 | 630.98 | | n/a |
| P85 | 5326 | 7594 | 634.08 | 3.05 | 631.03 | | n/a |
| P86 | 5329 | 7585 | 634.41 | 3.25 | 631.16 | | n/a |
| P87 | 5121 | 7466 | 633.88 | 3.06 | 630.82 | | n/a |
| P88 | 5130 | 7460 | 633.90 | 3.11 | 630.79 | | n/a |
| P89 | 5137 | 7454 | 634.02 | 3.18 | 630.84 | | n/a |
| P90 | 4881 | 7152 | 634.45 | 3.93 | 630.52 | | n/a |
| P91 | 4889 | 7145 | 634.59 | 4.08 | 630.51 | | n/a |
| P92 | 4896 | 7138.1 | 633.87 | 3.30 | 630.57 | | n/a |

BWES Water Level and Piezometer Pairs

| Well Designation | Reference Points | | | 3/15/2004 | | Notes | Difference Across Barrier Wall (if applicable) ¹ |
|-------------------------------|------------------|-------|--------|-----------|-----------|---------------------------------|---|
| | East | North | TOC | level | Elevation | | |
| P93 - Outside BW | 5136 | 7067 | 638.79 | CNM | CNM | Does not exist - to be replaced | n/a |
| P94 - Inside BW | 5146 | 7061 | 638.98 | CNM | CNM | Does not exist - to be replaced | |
| P95 - Outside BW | 5146 | 6532 | 638.58 | 5.80 | 632.78 | | -5.69 |
| P96 - Inside BW | 5156 | 6537 | 641.26 | 14.17 | 627.09 | | |
| P105 - Outside BW | 5885 | 6678 | 638.86 | 4.28 | 634.58 | | |
| P106 - Inside BW | 5871 | 6685 | 638.10 | 9.81 | 628.29 | | -6.29 |
| P107 - Outside BW | 5766 | 7339 | 637.42 | 3.78 | 633.64 | | |
| P108 - Inside BW | 5757 | 7324 | 638.13 | 7.65 | 630.48 | | -3.16 |
| P109 - Outside BW | 5740 | 6387 | 644.30 | 10.01 | 634.29 | | |
| P110 - Inside BW | 5705 | 6382 | 647.68 | 20.02 | 627.66 | | -6.63 |
| P111 - Outside BW | 5551 | 5950 | 650.03 | 16.64 | 633.39 | | |
| P112 - Inside BW | 5525 | 5960 | 653.36 | 26.40 | 626.96 | | -6.43 |
| P113 - Inside BW ² | 5309 | 5693 | 657.53 | 30.65 | 626.88 | | -5.94 |
| ORCPZ102 - Outside BW | 5331 | 5612 | 652.47 | 19.65 | 632.82 | | |
| P114 - Inside BW | 5035 | 5729 | 653.69 | 26.40 | 627.29 | | -5.59 |
| P115 - Outside BW | 4970 | 5708 | 652.50 | 19.62 | 632.88 | | |
| P116 - Inside BW | 5031 | 6087 | 646.26 | 19.36 | 626.90 | | -6.58 |
| P117 - Outside BW | 5014 | 6087 | 643.93 | 10.45 | 633.48 | | |
| P118 - Inside BW | 5402 | 6539 | 645.52 | 18.37 | 627.15 | | n/a |

Notes:

All depth measurements and elevations are in units of feet.

Elevation is in feet above mean sea level (AMSL).

TOIC = top of inner casing

TOC = top of casing

TOSG = top of staff gauge

BW = Barrier Wall

CNM = could not measure (reason given under "Notes" column)

n/a = not applicable

¹ = A positive value indicates that the water level is higher inside the barrier wall. A negative value indicates that the water level is lower inside the barrier wall.

Table 6.2
Water Levels Inside Barrier Wall - First Quarter 2004
American Chemical Service NPL Site
Griffith, Indiana

| Date | On-Site Area | | | | | |
|-----------|--------------|-------|-------|-------|-------|-------|
| | Target Level | P-29 | P-31 | P-32 | P-36 | P-49 |
| 2-Jan-04 | 629.0 | 630.4 | 630.9 | 631.1 | 625.8 | 629.7 |
| 9-Jan-04 | 629.0 | 630.4 | 630.9 | 630.6 | 626.1 | 629.0 |
| 16-Jan-04 | 629.0 | 630.4 | 630.9 | 630.9 | 626.0 | 629.3 |
| 6-Feb-04 | 629.0 | 630.4 | 630.9 | 629.8 | 625.9 | 628.9 |
| 20-Feb-04 | 629.0 | 630.4 | 630.9 | 629.8 | 624.9 | 627.7 |
| 5-Mar-04 | 629.0 | 630.4 | 630.9 | 629.8 | 624.9 | 629.9 |

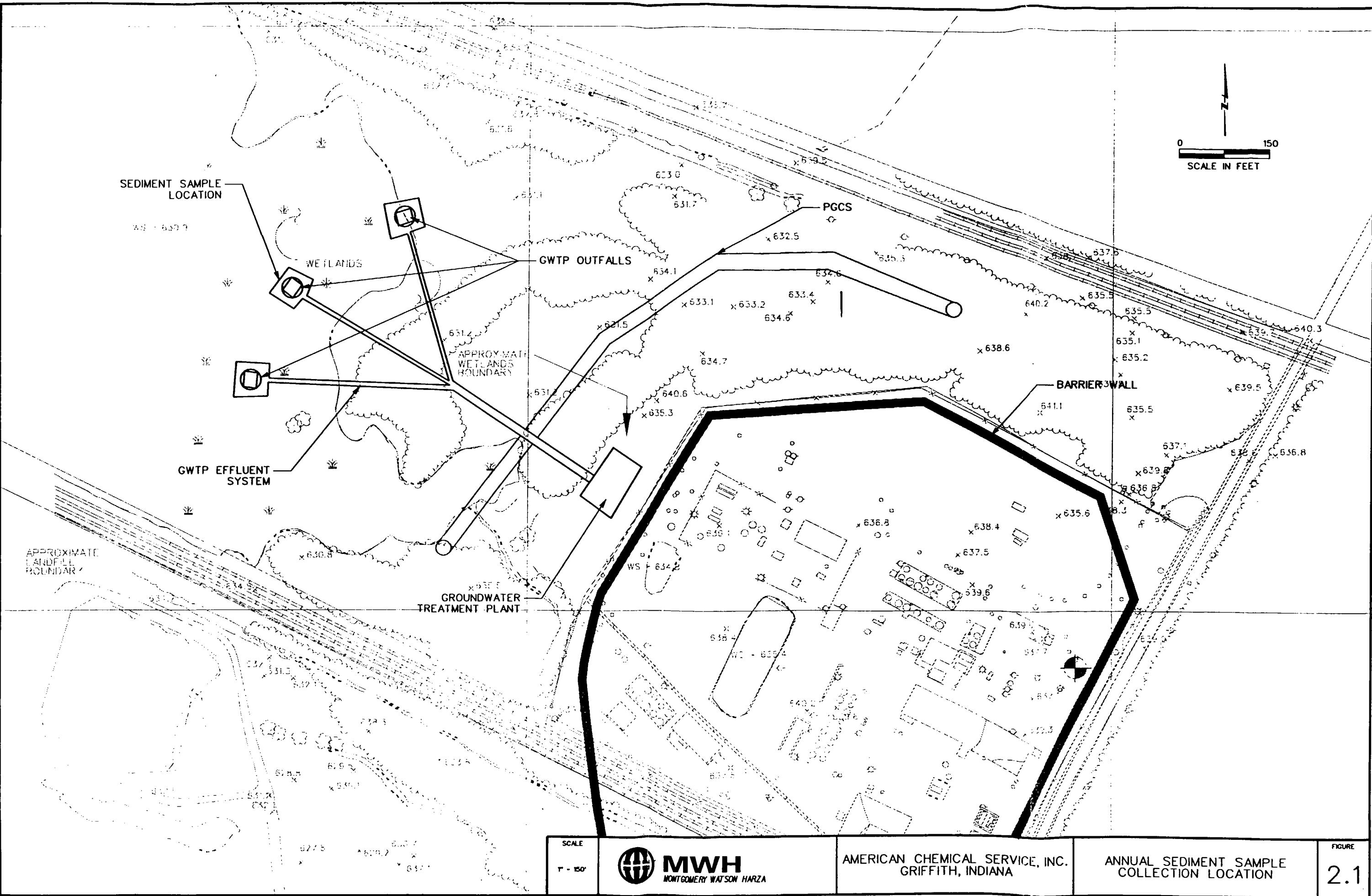
| Date | Off-Site Area | | | | | | | | | | |
|-----------|---------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| | Target Level | P-96 | P-110 | P-112 | P-113 | P-114 | P-116 | P-118 | AS-7 | AS-8 | AS-9 |
| 2-Jan-04 | 626.0 | 624.3 | 627.7 | 626.7 | 626.5 | 626.8 | 626.6 | 627.1 | -- | -- | -- |
| 9-Jan-04 | 626.0 | 624.1 | 627.5 | 627.5 | 626.8 | 627.1 | 627.0 | 626.9 | -- | -- | -- |
| 16-Jan-04 | 626.0 | 624.2 | 627.6 | 627.6 | 626.7 | 626.9 | 626.8 | 627.0 | 626.6 | 627.6 | 626.7 |
| 6-Feb-04 | 626.0 | 624.3 | 627.7 | 627.7 | 626.6 | 626.9 | 626.7 | 627.1 | 627.3 | 628.1 | 626.4 |
| 20-Feb-04 | 626.0 | 624.7 | 627.7 | 627.7 | 626.8 | 627.3 | 627.1 | 627.1 | -- | -- | -- |
| 5-Mar-04 | 626.0 | 624.8 | 627.7 | 627.7 | 626.8 | 627.2 | 627.0 | 627.1 | -- | -- | -- |

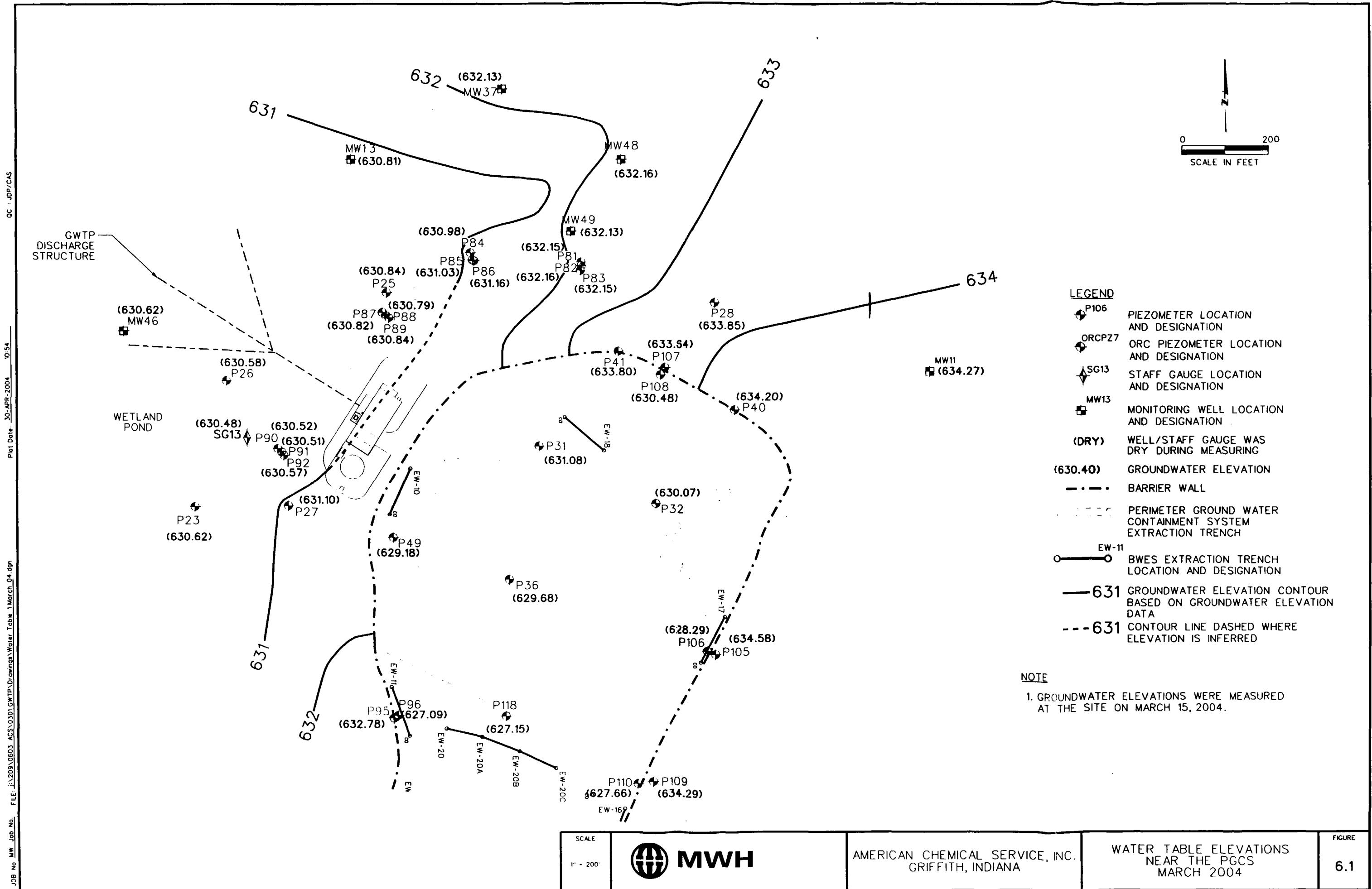
Notes:

All water level elevations are in feet AMSL

-- indicates no water level was recorded on this date

Figures





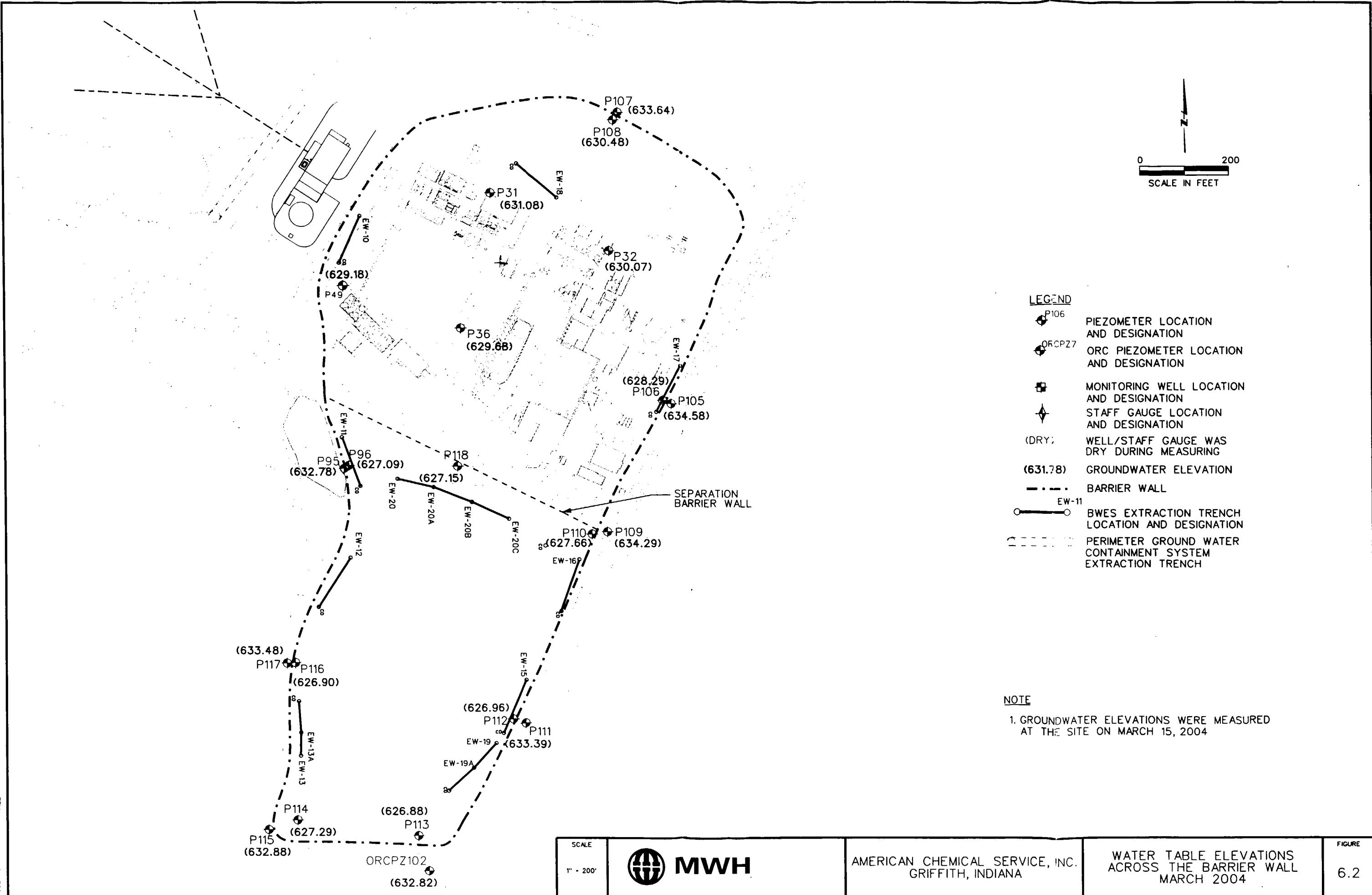
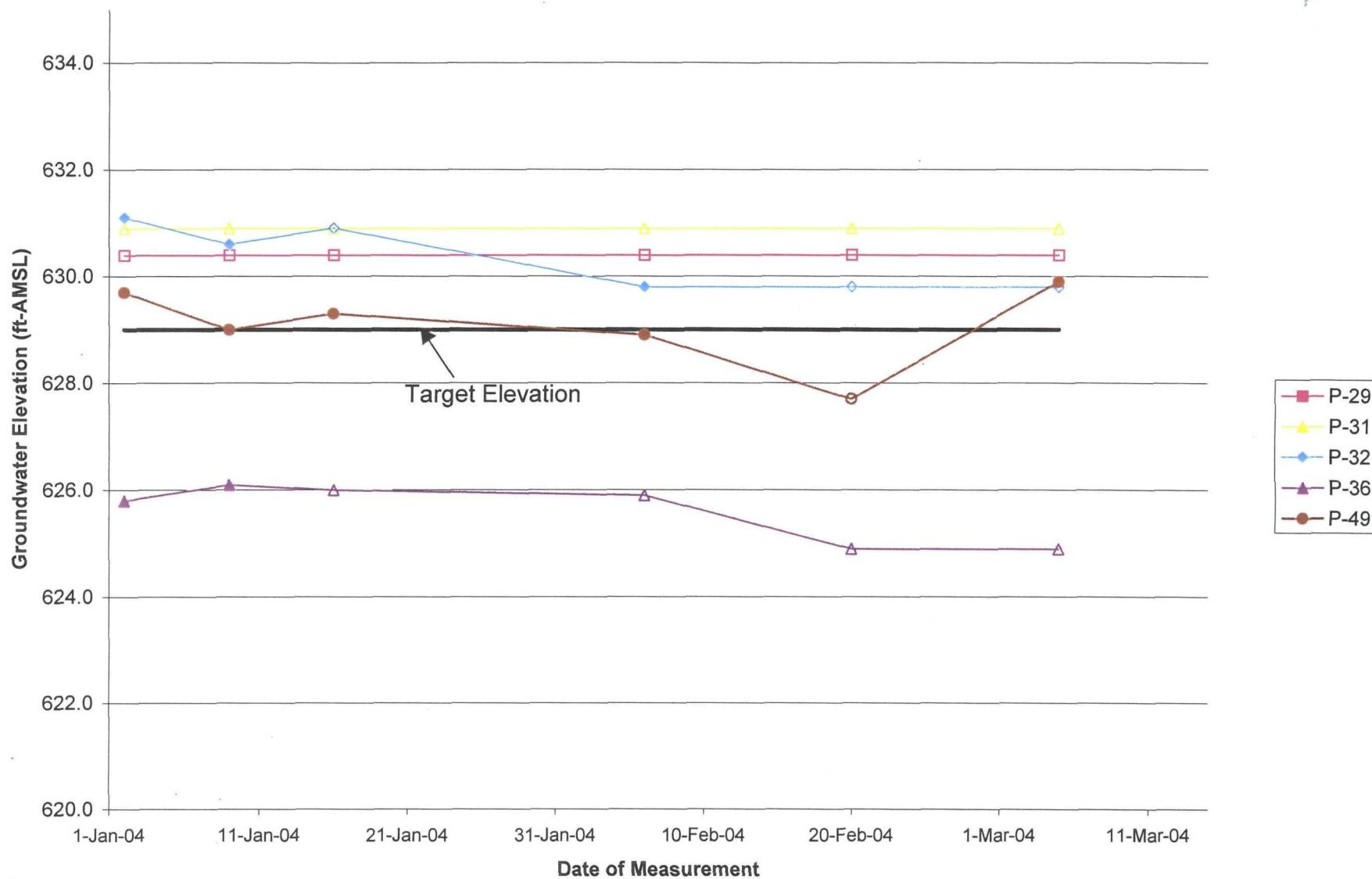


Figure 6.3
Water Level Trends Inside the Barrier Wall (Still Bottoms Pond Area)
ACS NPL Site
Griffith, Indiana

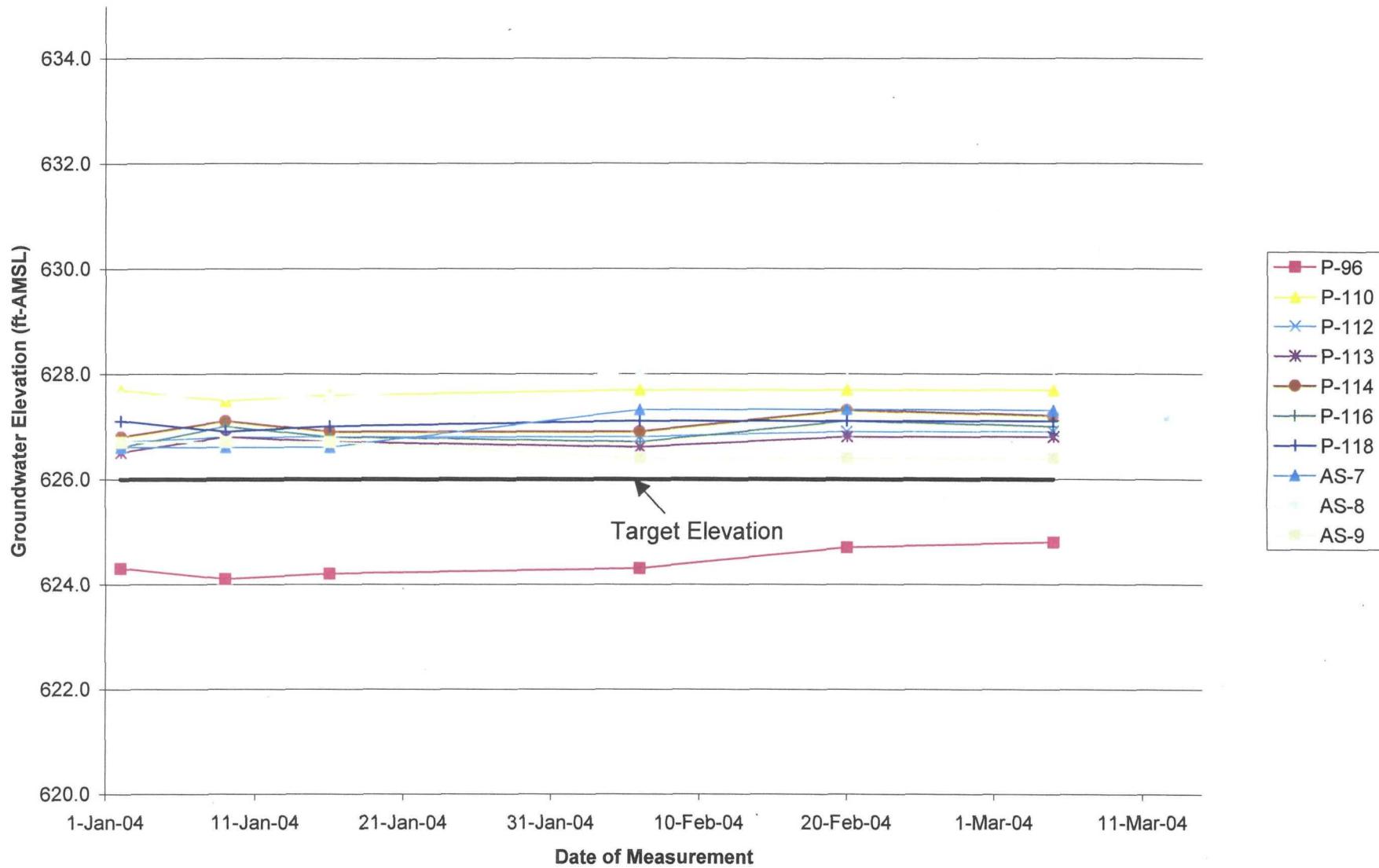


Note:

Hollow Points represent dry piezometers (data used for graphing purposes only).

The bottom elevation of the piezometers may vary due to silting or removal of silt.

Figure 6.4
Water Level Trends Inside the Barrier Wall (Off-Site Area)
ACS NPL Site
Griffith, Indiana



APPENDIX A

EFFLUENT ANALYTICAL DATA

**February 10, 2004 Compliance Sample
Laboratory Results**

111540

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: 2194

Matrix: (soil/water) WATER

Lab Sample ID: 219401

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 219401A71

Level: (low/med) LOW

Date Received: 02/11/04

% Moisture: not dec.

Date Analyzed: 02/11/04

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

Q

| CAS NO. | COMPOUND | UG/L | Q |
|-----------------|---------------------------|------|------------|
| 74-87-3----- | Chloromethane | 0.5 | U |
| 75-01-4----- | Vinyl Chloride | 0.5 | U |
| 74-83-9----- | Bromomethane | 0.5 | UWJ |
| 75-00-3----- | Chloroethane | 0.5 | U |
| 75-35-4----- | 1,1-Dichloroethene | 0.5 | U |
| 75-15-0----- | Carbon disulfide | 0.5 | U |
| 67-64-1----- | Acetone | 1.3 | JB 2.5 UBJ |
| 75-09-2----- | Methylene Chloride | 0.12 | J |
| 156-60-5----- | trans-1,2-Dichloroethene | 0.5 | U |
| 75-34-3----- | 1,1-Dichloroethane | 0.5 | U |
| 156-59-2----- | cis-1,2-Dichloroethene | 0.19 | J |
| 78-93-3----- | 2-butanone | 0.89 | J T |
| 67-66-3----- | Chloroform | 0.5 | U |
| 71-55-6----- | 1,1,1-Trichloroethane | 0.5 | U |
| 56-23-5----- | Carbon Tetrachloride | 0.5 | UWJ |
| 71-43-2----- | Benzene | 0.5 | U |
| 107-06-2----- | 1,2-Dichloroethane | 0.5 | U |
| 79-01-6----- | Trichloroethene | 0.5 | U |
| 78-87-5----- | 1,2-Dichloropropane | 0.5 | U |
| 75-27-4----- | Bromodichloromethane | 0.5 | U |
| 10061-01-5----- | cis-1,3-Dichloropropene | 0.5 | U |
| 108-10-1----- | 4-Methyl-2-pentanone | 2.5 | U |
| 108-88-3----- | Toluene | 0.34 | J |
| 10061-02-6----- | trans-1,3-Dichloropropene | 0.5 | U |
| 79-00-5----- | 1,1,2-Trichloroethane | 0.5 | U |
| 127-18-4----- | Tetrachloroethene | 0.5 | U |
| 591-78-6----- | 2-hexanone | 2.5 | U |
| 124-48-1----- | Dibromochloromethane | 0.5 | U |
| 108-90-7----- | Chlorobenzene | 0.5 | U |
| 100-41-4----- | Ethylbenzene | 0.5 | U |
| 108-38-3----- | m,p-Xylene | 0.22 | J |
| 95-47-6----- | o-Xylene | 0.5 | U |
| 100-42-5----- | Styrene | 0.5 | U |

FORM I VOA

111540

100012

11732C

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.: SDG No.: 2194

Matrix: (soil/water) WATER

Lab Sample ID: 219401

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 219401A71

Level: (low/med) LOW

Date Received: 02/11/04

% Moisture: not dec.

Date Analyzed: 02/11/04

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: (uL)

Soil Aliquot Volume: (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|----------------|----------------------------|--|---|
| 75-25-2----- | Bromoform | 0.5 | U |
| 79-34-5----- | 1,1,2,2-Tetrachloroethane | 0.5 | U |
| 541-73-1----- | 1,3-Dichlorobenzene | 0.5 | U |
| 106-46-7----- | 1,4-Dichlorobenzene | 0.5 | U |
| 95-50-1----- | 1,2-Dichlorobenzene | 0.5 | U |
| 120-82-1----- | 1,2,4-Trichlorobenzene | 0.5 | U |
| 540-59-0----- | 1,2-Dichloroethene (total) | 0.23 | J |
| 1330-20-7----- | Xylene (total) | 0.23 | J |

1480M

FORM I VOA

100013

11732B

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

| | | | |
|------------------------------|--------------------|-------------------------|--------------------------------|
| Lab Name: | COMPUCHEM | Method: | 8270C |
| Lab Code: | LIBRTY | Case No.: | SAS No.: |
| Matrix: | (soil/water) WATER | Lab Sample ID: 219601 | |
| Sample wt/vol: | 1000 (g/mL) ML | Lab File ID: 219601B66 | |
| Level: | (low/med) LOW | Date Received: 02/11/04 | |
| % Moisture: | _____ | decanted: (Y/N) | _____ Date Extracted: 02/11/04 |
| Concentrated Extract Volume: | 1000 (uL) | Date Analyzed: 02/11/04 | |
| Injection Volume: | 1.0 (uL) | Dilution Factor: 1.0 | |
| GPC Cleanup: | (Y/N) N | pH: | _____ |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) | | |
|---------------|----------------------------------|---|---|--|
| | | UG/L | Q | |
| 111-44-4----- | Bis(2-chloroethyl)ether _____ | 9.6 | U | |
| 106-44-5----- | 4-Methylphenol _____ | 10 | U | |
| 78-59-1----- | Isophorone _____ | 10 | U | |
| 117-81-7----- | bis(2-ethylhexyl)Phthalate _____ | 6 | U | |

14802

FORM I SV

8270C

100011

11732B

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

| | | |
|--|-----------------------|--------------------------|
| Lab Name: COMPUCHEM | Method: 8270C | |
| Lab Code: LIBRTY | Case No.: | SAS No.: SDG No.: 2196 |
| Matrix: (soil/water) WATER | | Lab Sample ID: 219601 |
| Sample wt/vol: 1000 (g/mL) ML | | Lab File ID: 219601A60 |
| Level: (low/med) LOW | | Date Received: 02/11/04 |
| % Moisture: _____ | decanted: (Y/N) _____ | Date Extracted: 02/11/04 |
| Concentrated Extract Volume: 1000 (uL) | | Date Analyzed: 02/16/04 |
| Injection Volume: 1.0 (uL) | | Dilution Factor: 1.0 |
| GPC Cleanup: (Y/N) N | pH: _____ | |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|-------------------------------|----------|--|---|
| 87-86-5-----Pentachlorophenol | _____ | 1 | U |

48M

FORM I SV

100012

11732D

1D
GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| | | |
|--|-----------------------|--------------------------|
| Lab Name: COMPUCHEM | Contract: 8082 | EFFLUENT |
| Lab Code: COMPU | Case No.: | SAS No.: SDG No.: 2196 |
| Matrix: (soil/water) WATER | | Lab Sample ID: 219601 |
| Sample wt/vol: 1000 (g/mL) ML | | Lab File ID: _____ |
| % Moisture: _____ | decanted: (Y/N) _____ | Date Received: 02/11/04 |
| Extraction: (SepF/Cont/Sonc) SEPF | | Date Extracted: 02/11/04 |
| Concentrated Extract Volume: 2500 (uL) | | Date Analyzed: 02/12/04 |
| Injection Volume: 1.0 (uL) | | Dilution Factor: 1.0 |
| GPC Cleanup: (Y/N) N | pH: _____ | Sulfur Cleanup: (Y/N) N |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L | Q |
|-----------------|--------------|--|---|
| 12674-11-2----- | Aroclor-1016 | 0.47 | U |
| 11104-28-2----- | Aroclor-1221 | 0.63 | U |
| 11141-16-5----- | Aroclor-1232 | 0.47 | U |
| 53469-21-9----- | Aroclor-1242 | 0.31 | U |
| 12672-29-6----- | Aroclor-1248 | 0.31 | U |
| 11097-69-1----- | Aroclor-1254 | 0.31 | U |
| 11096-82-5----- | Aroclor-1260 | 0.47 | U |

✓46M

FORM I PEST

00010

SW-846

-1-

INORGANIC ANALYSES DATA SHEET

11732B

EPA SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM

Contract: _____

Lab Code: LIBERTY

Case No.: _____

SAS No.: _____

SDG No.: 2196Matrix (soil/water): WATERLab Sample ID: 219601Level (low/med): LOWDate Received: 2/11/04% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): UG/L

| CAS No. | Analyte | Concentration | C | Q | M | |
|-----------|-----------|---------------|---|---|----|----|
| 7440-38-2 | Arsenic | 13.4 | | | P | UB |
| 7440-41-7 | Beryllium | 0.27 | B | | P | UB |
| 7440-43-9 | Cadmium | 0.20 | U | | P | |
| 7439-96-5 | Manganese | 98.4 | | | P | B |
| 7439-97-6 | Mercury | 0.10 | U | | CV | |
| 7782-49-2 | Selenium | 2.0 | B | | P | |
| 7440-28-0 | Thallium | 3.2 | U | | P | |
| 7440-66-6 | Zinc | 37.9 | | | P | B |

1450M

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____Color After: COLORLESS Clarity After: CLEAR Artifacts: _____Comments: _____

4732D

SW-846

I-CC

CLASSICAL CHEMISTRY ANALYSES DATA SHEET

EPA SAMPLE NO.

EFFLUENT

Lab Name: CompuChem Contract: _____

Lab Code: _____ Case No.: _____ NRAS No.: _____

SDG No.: 2196

Matrix (soil/water): WATER Lab Sample ID: 219601

Date Received: 2/11/04 % Solids: 0.00

Concentration Units (mg/L or mg/kg dry weight): mg/L

| PARAMETER | CONCENTRATION | C | Q | M | DATE ANALYZED |
|-----------|---------------|---|---|---|------------------|
| TSS | 2.80 | | | | 2/16/04 |
| pH | 6.00 | | | | 2/11/04 |

T-4823

Comments:

2

CHEMICAL & ENVIRONMENTAL TECHNOLOGY, INC.

ENVIRONMENTAL ANALYTICAL SERVICES

11732A

FINAL REPORT OF ANALYSES

COMPUCHEM

Attn: DIANE BYRD
501 MADISON AVENUE
CARY, NC 27513-

REPORT DATE: 02/17/04

SAMPLE NUMBER- 214482 SAMPLE ID- ACS 89 EFFLUENT
DATE SAMPLED- 02/10/04
DATE RECEIVED- 02/11/04 SAMPLER- CLIENT
TIME RECEIVED- 1600 DELIVERED BY- C BRAND

SAMPLE MATRIX- WW
TIME SAMPLED- 1400
RECEIVED BY- MNH

Page 1 of 1

PROJECT NAME : ACS 89

| ANALYSIS | METHOD | DATE | BY | RESULT UNITS | PQL |
|---------------------------|-----------|----------|-----|--------------|-----|
| BIOCHEMICAL OXYGEN DEMAND | EPA 405.1 | 02/12/04 | JMB | <2 mg/L | 2 |

PQL = Practical Quantitation Limit

Results followed by the letter J are estimated concentrations.

NC DENR CERTIFICATIONS: DWQ - 96; PUBLIC WATER SUPPLY - 37724

LABORATORY DIRECTOR

R.H.H

450M

**March 2, 2004 Compliance Sample
Laboratory Results**

11732D

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

Lab Name: COMPUCHEM

Method: 8260B

EFFLUENT

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: 2383

Matrix: (soil/water) WATER

Lab Sample ID: 238301

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 238301A73

Level: (low/med) LOW

Date Received: 03/03/04

% Moisture: not dec. _____
GC Column: ZB-624 ID: 0.32 (mm)

Date Analyzed: 03/04/04

Soil Extract Volume: _____ (uL)

Dilution Factor: 1.0
Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) | UG/L | Q |
|-----------------|---------------------------|---|------|----|
| 74-87-3----- | Chloromethane | 0.5 | U | |
| 75-01-4----- | Vinyl Chloride | 0.5 | U | |
| 74-83-9----- | Bromomethane | 0.5 | U | |
| 75-00-3----- | Chloroethane | 0.5 | U | |
| 75-35-4----- | 1,1-Dichloroethene | 0.5 | U | |
| 75-15-0----- | Carbon disulfide | 0.5 | U | |
| 67-64-1----- | Acetone | 2.5 | U | WT |
| 75-09-2----- | Methylene Chloride | 0.21 | J | |
| 156-60-5----- | trans-1,2-Dichloroethene | 0.5 | U | |
| 75-34-3----- | 1,1-Dichloroethane | 0.5 | U | |
| 156-59-2----- | cis-1,2-Dichloroethene | 0.5 | U | |
| 78-93-3----- | 2-butanone | 2.5 | U | WT |
| 67-66-3----- | Chloroform | 0.5 | U | |
| 71-55-6----- | 1,1,1-Trichloroethane | 0.5 | U | |
| 56-23-5----- | Carbon Tetrachloride | 0.5 | U | |
| 71-43-2----- | Benzene | 0.5 | U | |
| 107-06-2----- | 1,2-Dichloroethane | 0.5 | U | |
| 79-01-6----- | Trichloroethene | 0.5 | U | |
| 78-87-5----- | 1,2-Dichloropropane | 0.5 | U | |
| 75-27-4----- | Bromodichloromethane | 0.5 | U | |
| 10061-01-5----- | cis-1,3-Dichloropropene | 0.5 | U | |
| 108-10-1----- | 4-Methyl-2-pentanone | 2.5 | U | |
| 108-88-3----- | Toluene | 0.21 | J | |
| 10061-02-6----- | trans-1,3-Dichloropropene | 0.5 | U | |
| 79-00-5----- | 1,1,2-Trichloroethane | 0.5 | U | |
| 127-18-4----- | Tetrachloroethene | 0.5 | U | |
| 591-78-6----- | 2-hexanone | 2.5 | U | WT |
| 124-48-1----- | Dibromochloromethane | 0.5 | U | |
| 108-90-7----- | Chlorobenzene | 0.5 | U | |
| 100-41-4----- | Ethylbenzene | 0.5 | U | |
| 108-38-3----- | m,p-Xylene | 1 | U | |
| 95-47-6----- | o-Xylene | 0.5 | U | |
| 100-42-5----- | Styrene | 0.5 | U | |

FORM I VOA

44521

00011

11732 D

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

EFFLUENT

Lab Name: COMPUCHEM

Method: 8260B

Lab Code: LIBRTY Case No.:

SAS No.:

SDG No.: 2383

Matrix: (soil/water) WATER

Lab Sample ID: 238301

Sample wt/vol: 25 (g/ml) ML

Lab File ID: 238301A73

Level: (low/med) LOW

Date Received: 03/03/04

% Moisture: not dec. _____

Date Analyzed: 03/04/04

GC Column: ZB-624 ID: 0.32 (mm)

Dilution Factor: 1.0

Soil Extract Volume: _____ (uL)

Soil Aliquot Volume: _____ (uL)

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) | UG/L | Q |
|---------|----------|---|------|---|
|---------|----------|---|------|---|

| | | | | |
|----------------|----------------------------|--|-----|---|
| 75-25-2----- | Bromoform | | 0.5 | U |
| 79-34-5----- | 1,1,2,2-Tetrachloroethane | | 0.5 | U |
| 541-73-1----- | 1,3-Dichlorobenzene | | 0.5 | U |
| 106-46-7----- | 1,4-Dichlorobenzene | | 0.5 | U |
| 95-50-1----- | 1,2-Dichlorobenzene | | 0.5 | U |
| 120-82-1----- | 1,2,4-Trichlorobenzene | | 0.5 | U |
| 540-59-0----- | 1,2-Dichloroethene (total) | | 0.5 | U |
| 1330-20-7----- | Xylene (total) | | 0.5 | U |

FORM I VOA

1450W

00012

11732D

SW-846

1-CC

CLASSICAL CHEMISTRY ANALYSES DATA SHEET

EPA SAMPLE NO.

Lab Name: CompuChem

Contract: _____

EFFLUENT

Lab Code: _____

Case No.: _____

NRAS No.: _____

SDG No.: 2383Matrix (soil/water): WATERLab Sample ID: 238301Date Received: 3/3/04% Solids: 0.00

Concentration Units (mg/L or mg/kg dry weight):

pH units

| PARAMETER | CONCENTRATION | C | Q | M | DATE ANALYZED |
|-----------|---------------|---|---|---|------------------|
| pH | 7.10 | | | | 3/3/04 |

LHSOM

Comments:

2

APPENDIX B

SEDIMENT ANALYTICAL DATA

January 13 Annual Sample – Laboratory Results

1D
GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

| | | |
|-----------------------------------|--------------------------|-------------------------|
| Lab Name: COMPUCHEM | Contract: 8082 | TPS-011304 |
| Lab Code: COMPU | Case No.: | SDG No.: 2003 |
| Matrix: (soil/water) SOIL | Lab Sample ID: 200301 | |
| Sample wt/vol: | 30.0 (g/mL) G | Lab File ID: _____ |
| % Moisture: 50 | decanted: (Y/N) N | Date Received: 01/14/04 |
| Extraction: (SepF/Cont/Sonc) SONC | Date Extracted: 01/15/04 | |
| Concentrated Extract Volume: | 5000 (uL) | Date Analyzed: 01/20/04 |
| Injection Volume: | 2.0 (uL) | Dilution Factor: 1.0 |
| GPC Cleanup: (Y/N) N | pH: _____ | Sulfur Cleanup: (Y/N) Y |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG Q | |
|-----------------|--------------|---|---|
| | | | |
| 12674-11-2----- | Aroclor-1016 | 67 | U |
| 11104-28-2----- | Aroclor-1221 | 84 | U |
| 11141-16-5----- | Aroclor-1232 | 67 | U |
| 53469-21-9----- | Aroclor-1242 | 42 | U |
| 12672-29-6----- | Aroclor-1248 | 42 | U |
| 11097-69-1----- | Aroclor-1254 | 42 | U |
| 11096-82-5----- | Aroclor-1260 | 35 | J |

6/2/04

1D
GC EXTRACTABLE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TPS-DUP

| | | | |
|------------------------------|-----------------------|-----------------|-------------------------|
| Lab Name: | COMPUCHEM | Contract: | 8082 |
| Lab Code: | COMPU | Case No.: | SAS No.: |
| Matrix: | (soil/water) SOIL | Sample wt/vol: | 30.0 (g/mL) G |
| % Moisture: | 56 | decanted: | (Y/N) N |
| Extraction: | (SepF/Cont/Sonc) SONC | Date Received: | 01/14/04 |
| Concentrated Extract Volume: | 5000 (uL) | Date Extracted: | 01/15/04 |
| Injection Volume: | 2.0 (uL) | Date Analyzed: | 01/20/04 |
| GPC Cleanup: | (Y/N) N | pH: | ____ |
| | | | Sulfur Cleanup: (Y/N) Y |

| CAS NO. | COMPOUND | CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG | Q |
|-----------------|--------------|---|---|
| 12674-11-2----- | Aroclor-1016 | 76 | U |
| 11104-28-2----- | Aroclor-1221 | 95 | U |
| 11141-16-5----- | Aroclor-1232 | 76 | U |
| 53469-21-9----- | Aroclor-1242 | 48 | U |
| 12672-29-6----- | Aroclor-1248 | 48 | U |
| 11097-69-1----- | Aroclor-1254 | 48 | U |
| 11096-82-5----- | Aroclor-1260 | 76 | U |

1/20/04

APPENDIX C

THERMAL OXIDIZER OFF-GAS ANALYTICAL DATA

January 8, 2004 Off-Gas Sample Laboratory Results

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 ONS IN1 JAN8 *B⁰⁵*

ID#: 0401113-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 670 | 9600 | 1700 | 25000 |
| Bromomethane | 670 | Not Detected | 2600 | Not Detected |
| Chloroethane | 670 | 2500 | 1800 | 6600 |
| 1,1-Dichloroethene | 670 | 2200 | 2700 | 8700 |
| Methylene Chloride | 670 | 26000 | 2400 | 91000 |
| 1,1-Dichloroethane | 670 | 11000 | 2800 | 44000 |
| cis-1,2-Dichloroethene | 670 | 87000 | 2700 | 350000 |
| Chloroform | 670 | 5300 | 3300 | 26000 |
| 1,1,1-Trichloroethane | 670 | 68000 | 3700 | 380000 |
| Carbon Tetrachloride | 670 | Not Detected | 4300 | Not Detected |
| Benzene | 670 | 37000 | 2200 | 120000 |
| 1,2-Dichloroethane | 670 | 700 | 2800 | 2900 |
| Trichloroethene | 670 | 34000 | 3600 | 180000 |
| 1,2-Dichloropropane | 670 | 940 | 3100 | 4400 |
| cis-1,3-Dichloropropene | 670 | Not Detected | 3100 | Not Detected |
| Toluene | 670 | 130000 | 2600 | 520000 |
| trans-1,3-Dichloropropene | 670 | Not Detected | 3100 | Not Detected |
| 1,1,2-Trichloroethane | 670 | Not Detected | 3700 | Not Detected |
| Tetrachloroethene | 670 | 44000 | 4600 | 300000 |
| Chlorobenzene | 670 | Not Detected | 3100 | Not Detected |
| Ethyl Benzene | 670 | 14000 | 3000 | 63000 |
| m,p-Xylene | 670 | 50000 | 3000 | 220000 |
| o-Xylene | 670 | 18000 | 3000 | 79000 |
| Styrene | 670 | Not Detected | 2900 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 670 | Not Detected | 4700 | Not Detected |
| Bromodichloromethane | 670 | Not Detected | 4600 | Not Detected |
| Dibromochloromethane | 670 | Not Detected | 5800 | Not Detected |
| Chloromethane | 2700 | Not Detected | 5600 | Not Detected |
| Acetone | 2700 | 7600 | 6500 | 18000 |
| Carbon Disulfide | 2700 | 860 J <i>15</i> | 8500 | 2700 J |
| trans-1,2-Dichloroethene | 2700 | 380 J <i>15</i> | 11000 | 1500 J |
| 2-Butanone (Methyl Ethyl Ketone) | 2700 | Not Detected | 8000 | Not Detected |
| 4-Methyl-2-pentanone | 2700 | 2600 J <i>15</i> | 11000 | 11000 |
| 2-Hexanone | 2700 | Not Detected | 11000 | Not Detected |
| Bromoform | 2700 | Not Detected | 28000 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

CPS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 ONS IN1 JAN8

ID#: 0401113-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| | | |
|-----------------------|----|--------|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 97 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

CRS
2/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 OFS IN1 JAN8

ID#: 0401113-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rot. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------|----------------------|------------------|-----------------------|-------------------|
|----------|----------------------|------------------|-----------------------|-------------------|

| | | | | |
|----------------------------------|------|--------------|-------|--------------|
| Vinyl Chloride | 1300 | 940 J 15 | 3400 | 2400 J |
| Bromomethane | 1300 | Not Detected | 5200 | Not Detected |
| Chloroethane | 1300 | Not Detected | 3500 | Not Detected |
| 1,1-Dichloroethene | 1300 | 1400 | 5300 | 5500 |
| Methylene Chloride | 1300 | 97000 | 4700 | 340000 |
| 1,1-Dichloroethane | 1300 | 12000 | 5400 | 50000 |
| cis-1,2-Dichloroethene | 1300 | 14000 | 5300 | 58000 |
| Chloroform | 1300 | 5000 | 6600 | 25000 |
| 1,1,1-Trichloroethane | 1300 | 88000 | 7300 | 490000 |
| Carbon Tetrachloride | 1300 | Not Detected | 8400 | Not Detected |
| Benzene | 1300 | 62000 | 4300 | 200000 |
| 1,2-Dichloroethane | 1300 | 2500 | 5400 | 10000 |
| Trichloroethene | 1300 | 45000 | 7200 | 250000 |
| 1,2-Dichloropropane | 1300 | 850 J 15 | 6200 | 4000 J |
| cis-1,3-Dichloropropene | 1300 | Not Detected | 6100 | Not Detected |
| Toluene | 1300 | 310000 | 5000 | 1200000 |
| trans-1,3-Dichloropropene | 1300 | Not Detected | 6100 | Not Detected |
| 1,1,2-Trichloroethane | 1300 | Not Detected | 7300 | Not Detected |
| Tetrachloroethene | 1300 | 53000 | 9100 | 360000 |
| Chlorobenzene | 1300 | Not Detected | 6200 | Not Detected |
| Ethyl Benzene | 1300 | 23000 | 5800 | 100000 |
| m,p-Xylene | 1300 | 92000 | 5800 | 400000 |
| o-Xylene | 1300 | 29000 | 5800 | 130000 |
| Styrene | 1300 | Not Detected | 5700 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 1300 | Not Detected | 9200 | Not Detected |
| Bromodichloromethane | 1300 | Not Detected | 9000 | Not Detected |
| Dibromochloromethane | 1300 | Not Detected | 11000 | Not Detected |
| Chloromethane | 5300 | Not Detected | 11000 | Not Detected |
| Acetone | 5300 | 52000 | 13000 | 120000 |
| Carbon Disulfide | 5300 | 880 J 15 | 17000 | 2800 J |
| trans-1,2-Dichloroethene | 5300 | Not Detected | 21000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 5300 | 29000 | 16000 | 87000 |
| 4-Methyl-2-pentanone | 5300 | 13000 | 22000 | 53000 |
| 2-Hexanone | 5300 | Not Detected | 22000 | Not Detected |
| Bromoform | 5300 | Not Detected | 55000 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

ACS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 OFS IN1 JAN8

ID#: 0401113-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|------------|-----------|---------------|
|------------|-----------|---------------|

| | | |
|-----------------------|-----|--------|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 105 | 70-130 |
| 4-Bromofluorobenzene | 95 | 70-130 |

CRG
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF 1500 JAN8

ID#: 0401113-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 8.8 | 180 | 23 | 460 |
| Bromomethane | 8.8 | Not Detected | 35 | Not Detected |
| Chloroethane | 8.8 | 42 | 24 | 110 |
| 1,1-Dichloroethene | 8.8 | 500 | 35 | 2000 |
| Methylene Chloride | 8.8 | 740 | 31 | 2600 |
| 1,1-Dichloroethane | 8.8 | 110 | 36 | 450 |
| cis-1,2-Dichloroethene | 8.8 | 1000 | 35 | 4200 |
| Chloroform | 8.8 | 71 | 44 | 350 |
| 1,1,1-Trichloroethane | 8.8 | 490 | 49 | 2700 |
| Carbon Tetrachloride | 8.8 | 2.9 J /S | 56 | 18 J |
| Benzene | 8.8 | 1000 | 28 | 3300 |
| 1,2-Dichloroethane | 8.8 | 20 | 36 | 84 |
| Trichloroethene | 8.8 | 600 | 48 | 3300 |
| 1,2-Dichloropropane | 8.8 | 9.4 | 41 | 44 |
| cis-1,3-Dichloropropene | 8.8 | Not Detected | 40 | Not Detected |
| Toluene | 8.8 | 2800 | 34 | 11000 |
| trans-1,3-Dichloropropene | 8.8 | Not Detected | 40 | Not Detected |
| 1,1,2-Trichloroethane | 8.8 | Not Detected | 49 | Not Detected |
| Tetrachloroethene | 8.8 | 850 | 61 | 5900 |
| Chlorobenzene | 8.8 | 9.7 | 41 | 46 |
| Ethyl Benzene | 8.8 | 240 | 39 | 1000 |
| m,p-Xylene | 8.8 | 740 | 39 | 3300 |
| o-Xylene | 8.8 | 240 | 39 | 1000 |
| Styrene | 8.8 | 82 | 38 | 360 |
| 1,1,2,2-Tetrachloroethane | 8.8 | Not Detected | 61 | Not Detected |
| Bromodichloromethane | 8.8 | Not Detected | 60 | Not Detected |
| Dibromochloromethane | 8.8 | Not Detected | 76 | Not Detected |
| Chloromethane | 35 | 66 | 74 | 140 |
| Acetone | 35 | 320 | 85 | 790 |
| Carbon Disulfide | 35 | 7.2 J /S | 110 | 23 J |
| trans-1,2-Dichloroethene | 35 | 170 | 140 | 690 |
| 2-Butanone (Methyl Ethyl Ketone) | 35 | 140 | 100 | 430 |
| 4-Methyl-2-pentanone | 35 | 50 | 150 | 210 |
| 2-Hexanone | 35 | Not Detected | 150 | Not Detected |
| Bromoform | 35 | Not Detected | 370 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

CRS
3/11/09

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF 1500 JAN8

ID#: 0401113-05A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|------------|-----------|---------------|
|------------|-----------|---------------|

| | | |
|-----------------------|-----|--------|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF 1450 JAN8

ID#: 0401113-06A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 6.6 | 110 | 17 | 300 |
| Bromomethane | 6.6 | Not Detected | 26 | Not Detected |
| Chloroethane | 6.6 | 20 | 18 | 55 |
| 1,1-Dichloroethene | 6.6 | 390 | 27 | 1600 |
| Methylene Chloride | 6.6 | 700 | 23 | 2500 |
| 1,1-Dichloroethane | 6.6 | 88 | 27 | 360 |
| cis1,2-Dichloroethene | 6.6 | 640 | 26 | 2600 |
| Chloroform | 6.6 | 89 | 33 | 440 |
| 1,1,1-Trichloroethane | 6.6 | 480 | 37 | 2700 |
| Carbon Tetrachloride | 6.6 | 12 | 42 | 80 |
| Benzene | 6.6 | 800 | 21 | 2600 |
| 1,2-Dichloroethane | 6.6 | 16 | 27 | 68 |
| Trichloroethene | 6.6 | 500 | 36 | 2700 |
| 1,2-Dichloropropane | 6.6 | 5.9 J | 31 | 28 J |
| cis-1,3-Dichloropropene | 6.6 | Not Detected | 15 | Not Detected |
| Toluene | 6.6 | 2100 | 25 | 8100 |
| trans-1,3-Dichloropropene | 6.6 | Not Detected | 30 | Not Detected |
| 1,1,2-Trichloroethane | 6.6 | Not Detected | 37 | Not Detected |
| Tetrachloroethene | 6.6 | 720 | 46 | 5000 |
| Chrobenzene | 6.6 | 7.2 | 31 | 34 |
| Ethyl Benzene | 6.6 | 160 | 29 | 720 |
| m,p-Xylene | 6.6 | 530 | 29 | 2300 |
| o-Xylene | 6.6 | 180 | 29 | 770 |
| Styrene | 6.6 | 57 | 28 | 250 |
| 1,1,2,2-Tetrachloroethane | 6.6 | Not Detected | 46 | Not Detected |
| Bromodichloromethane | 6.6 | 7.3 | 45 | 50 |
| Dibromochloromethane | 6.6 | Not Detected | 57 | Not Detected |
| Chloromethane | 26 | 58 | 55 | 120 |
| Acetone | 26 | 370 | 64 | 900 |
| Carbon Disulfide | 26 | Not Detected | 84 | Not Detected |
| trans-1,2-Dichloroethene | 26 | 150 | 110 | 600 |
| 2-Butanone (Methyl Ethyl Ketone) | 26 | 160 | 79 | 480 |
| 4-Methyl-2-pentanone | 26 | 47 | 110 | 200 |
| 2-Hexanone | 26 | Not Detected | 110 | Not Detected |
| Bromoform | 26 | Not Detected | 280 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF 1450 JAN8

ID#: 0401113-06A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 97 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 IN1 JAN8

ID#: 0401113-07A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 660 | 4000 | 1700 | 10000 |
| Bromomethane | 660 | Not Detected | 2600 | Not Detected |
| Chloroethane | 660 | 1200 | 1800 | 3100 |
| 1,1-Dichloroethene | 660 | 1300 | 2700 | 5200 |
| Methylene Chloride | 660 | 47000 | 2300 | 160000 |
| 1,1-Dichloroethane | 660 | 8300 | 2700 | 34000 |
| cis-1,2-Dichloroethene | 660 | 43000 | 2600 | 170000 |
| Chloroform | 660 | 4400 | 3300 | 22000 |
| 1,1,1-Trichloroethane | 660 | 59000 | 3700 | 330000 |
| Carbon Tetrachloride | 660 | Not Detected | 4200 | Not Detected |
| Benzene | 660 | 40000 | 2100 | 130000 |
| 1,2-Dichloroethane | 660 | 1200 | 2700 | 5000 |
| Trichloroethene | 660 | 32000 | 3600 | 180000 |
| 1,2-Dichloropropane | 660 | 710 | 3100 | 3300 |
| cis-1,3-Dichloropropene | 660 | Not Detected | 3000 | Not Detected |
| Toluene | 660 | 200000 | 2500 | 760000 |
| trans-1,3-Dichloropropene | 660 | Not Detected | 3000 | Not Detected |
| 1,1,2-Trichloroethane | 660 | Not Detected | 3700 | Not Detected |
| Tetrachloroethene | 660 | 42000 | 4600 | 290000 |
| Chlorobenzene | 660 | Not Detected | 3100 | Not Detected |
| Ethyl Benzene | 660 | 18000 | 2900 | 80000 |
| m,p-Xylene | 660 | 70000 | 2900 | 310000 |
| o-Xylene | 660 | 23000 | 2900 | 100000 |
| Styrene | 660 | Not Detected | 2800 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 660 | Not Detected | 4600 | Not Detected |
| Bromodichloromethane | 660 | Not Detected | 4500 | Not Detected |
| Dibromochloromethane | 660 | Not Detected | 5700 | Not Detected |
| Chloromethane | 2600 | Not Detected | 5500 | Not Detected |
| Acetone | 2600 | 24000 | 6400 | 58000 |
| Carbon Disulfide | 2600 | 3300 | 8400 | 10000 |
| trans-1,2-Dichloroethene | 2600 | Not Detected | 11000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 2600 | 13000 | 7900 | 40000 |
| 4-Methyl-2-pentanone | 2600 | 7000 | 11000 | 29000 |
| 2-Hexanone | 2600 | Not Detected | 11000 | Not Detected |
| Bromoform | 2600 | Not Detected | 28000 | Not Detected |

Container Type: 6 Liter Summa Canister

CPG
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 IN1 JAN8

ID#: 0401113-07A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 107 | 70-130 |
| 4-Bromofluorobenzene | 98 | 70-130 |

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 IN2 JAN8

ID#: 0401113-08A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 680 | 4400 | 1800 | 11000 |
| Bromomethane | 680 | Not Detected | 2700 | Not Detected |
| Chloroethane | 680 | 1100 | 1800 | 3000 |
| 1,1-Dichloroethene | 680 | 1300 | 2700 | 5100 |
| Methylene Chloride | 680 | 49000 | 2400 | 170000 |
| 1,1-Dichloroethane | 680 | 8700 | 2800 | 36000 |
| cis-1,2-Dichloroethene | 680 | 45000 | 2700 | 180000 |
| Chloroform | 680 | 4700 | 3400 | 23000 |
| 1,1,1-Trichloroethane | 680 | 61000 | 3800 | 340000 |
| Carbon Tetrachloride | 680 | Not Detected | 4300 | Not Detected |
| Benzene | 680 | 41000 | 2200 | 130000 |
| 1,2-Dichloroethane | 680 | 1400 | 2800 | 5700 |
| Trichloroethene | 680 | 34000 | 3700 | 180000 |
| 1,2-Dichloropropane | 680 | 670 J 15 | 3200 | 3200 |
| cis-1,3-Dichloropropene | 680 | Not Detected | 3100 | Not Detected |
| Toluene | 680 | 190000 | 2600 | 730000 |
| trans-1,3-Dichloropropene | 680 | Not Detected | 3100 | Not Detected |
| 1,1,2-Trichloroethane | 680 | Not Detected | 3800 | Not Detected |
| Tetrachloroethene | 680 | 40000 | 4700 | 280000 |
| Chlorobenzene | 680 | Not Detected | 3200 | Not Detected |
| Ethyl Benzene | 680 | 18000 | 3000 | 81000 |
| m,p-Xylene | 680 | 69000 | 3000 | 310000 |
| o-Xylene | 680 | 23000 | 3000 | 100000 |
| Styrene | 680 | Not Detected | 2900 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 680 | Not Detected | 4700 | Not Detected |
| Bromodichloromethane | 680 | Not Detected | 4600 | Not Detected |
| Dibromochloromethane | 680 | Not Detected | 5900 | Not Detected |
| Chloromethane | 2700 | Not Detected | 5700 | Not Detected |
| Acetone | 2700 | 26000 | 6600 | 63000 |
| Carbon Disulfide | 2700 | 1600 J 15 | 8600 | 5000 J |
| trans-1,2-Dichloroethene | 2700 | Not Detected | 11000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 2700 | 14000 | 8200 | 43000 |
| 4-Methyl-2-pentanone | 2700 | 8200 | 11000 | 34000 |
| 2-Hexanone | 2700 | Not Detected | 11000 | Not Detected |
| Bromoform | 2700 | Not Detected | 28000 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

CVS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 IN2 JAN8

ID#: 0401113-08A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|------------|-----------|---------------|
|------------|-----------|---------------|

| | | |
|-----------------------|-----|--------|
| 1,2-Dichloroethane-d4 | 96 | 70-130 |
| Toluene-d8 | 103 | 70-130 |
| 4-Bromofluorobenzene | 99 | 70-130 |

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS JN1 JAN8

ID#: 0401127-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| | | | |
|-------------|--------|---------------------|------------------|
| Test Name: | TO-13A | Date of Collection: | 1/20/04 |
| DIL Factor: | 10 | Date of Analysis: | 1/15/04 04:59:33 |
| | | Date of Extraction: | 1/12/04 |

| Compound | Rpt. Limit (ug) | Amount (ug) |
|-----------------------------|--------------------|----------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | 0.95 J 15 |
| 1,2-Dichlorobenzene | 1.0 | 5.0 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 0.98 J 15 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 ONS IN1 JAN8

ID#: 0401127-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------------------------|--------------------|--------------------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 1.1 J 15 / 5B |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 35 Q | 50-150 |
| Phenol-d5 | 85 | 50-150 |
| Nitrobenzene-d5 | 84 | 50-150 |
| 2,4,6-Tribromophenol | 82 | 50-150 |
| Fluorene-d10 | 85 | 60-120 |
| Pyrene-d10 | 91 | 60-120 |

CAS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN1 JAN8

ID#: 0401127-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| | |
|--------------------|---------|
| Date Collected | 7/8/04 |
| Date Analyzed | 7/15/04 |
| Date of Extraction | 7/8/04 |

| Compound | Rpt. Limit (ug) | Amount (ug) |
|-----------------------------|--------------------|----------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | 1.3 |
| 1,4-Dichlorobenzene | 1.0 | 4.2 |
| 1,2-Dichlorobenzene | 1.0 | 31 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 5.5 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 0.48 J 15 |
| Naphthalene | 1.0 | 18 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 1.1 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 2.6 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 OFS IN1 JAN8

ID#: 0401127-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------|--------------------|----------------|
|----------|--------------------|----------------|

| | | |
|----------------------------|-----|--------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 1.5 J HB /5B |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 21 Q | 50-150 |
| Phenol-d5 | 79 | 50-150 |
| Nitrobenzene-d5 | 95 | 50-150 |
| 2,4,6-Tribromophenol | 90 | 50-150 |
| Fluorene-d10 | 92 | 60-120 |
| Pyrene-d10 | 94 | 60-120 |

CAS 3/25
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 Eff 1500 JAN8

ID#: 0401127-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Sample ID | Run Date | Run Time | Run Collection | Run Type | Run Method | Run Operator |
|-------------|-----------|----------|----------------|----------|------------|--------------|
| 0401127-05A | 1/11/2014 | 1500 | 0804 | Eff | 1500 | JAN8 |

| Compound | Rpt. Limit (ug) | Amount (ug) |
|-----------------------------|--------------------|----------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | Not Detected |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | Not Detected |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

2/11/14
CPS

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 Eff 1500 JAN8

ID#: 0401127-05A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Sample ID | Sample Name | Date Collected | Date Analyzed | Date of Extraction |
|-----------|-------------|----------------|---------------|--------------------|
| | | | | |

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------------------------|--------------------|----------------------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.62 J ACS 3/25/04 FB 1/5B |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|---------------|
| 2-Fluorophenol | 75 | 50-150 |
| Phenol-d5 | 82 | 50-150 |
| Nitrobenzene-d5 | 79 | 50-150 |
| 2,4,6-Tribromophenol | 83 | 50-150 |
| Fluorene-d10 | 83 | 60-120 |
| Pyrene-d10 | 90 | 60-120 |

ACS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 Eff 1450 JAN8

ID#: 0401127-06A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Sample ID | Date Collected | Sample Type | Detector Used |
|-------------|----------------|-------------|---------------|
| 0401127-06A | 1/11/2014 | GC/MS | TO-13A |

| Compound | Rpt. Limit (μ g) | Amount (μ g) |
|-----------------------------|--------------------------|----------------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | Not Detected |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | Not Detected |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

CG
1/11/14

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 Eff 1450 JAN8

ID#: 0401127-06A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt Limit (μ g) | Amount (μ g) |
|----------------------------|-------------------------|----------------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.63 J + 5 / 53 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 62 | 50-150 |
| Phenol-d5 | 70 | 50-150 |
| Nitrobenzene-d5 | 64 | 50-150 |
| 2,4,6-Tribromophenol | 80 | 50-150 |
| Fluorene-d10 | 74 | 60-120 |
| Pyrene-d10 | 87 | 60-120 |

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2/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN1 JAN8

ID#: 0401127-07A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| | | | |
|--------------|------------------|---------------------|----------|
| Sample ID: | ACS T02 IN1 JAN8 | Date of Collection: | 4/8/04 |
| Sample Type: | Gas Chromatogram | Date Analyzed: | 4/10/04 |
| | | Date of Extraction: | 4/1/2004 |

| Compound | Rpt. Limit (ug) | Amount (ug) | |
|-----------------------------|--------------------|----------------|-----------------|
| Phenol | 5.0 | | Not Detected /R |
| bis(2-Chloroethyl) Ether | 1.0 | | Not Detected /R |
| 2-Chlorophenol | 5.0 | | Not Detected /R |
| 1,3Dichlorobenzene | 1.0 | 3.2 | 15 |
| 1,4Dichlorobenzene | 1.0 | 11 | 15 |
| 1,2Dichlorobenzene | 1.0 | 67 | 15 |
| 2-Methylphenol (o-Cresol) | 5.0 | | Not Detected /R |
| N-Nitroso-di-n-propylamine | 1.0 | | Not Detected /R |
| 4-Methylphenol | 5.0 | | Not Detected /R |
| Hexachloroethane | 1.0 | | Not Detected /R |
| Nitrobenzene | 1.0 | | Not Detected /R |
| Isohorone | 1.0 | 8.5 | |
| 2-Nitrophenol | 5.0 | | Not Detected /R |
| 2,4-Dimethylphenol | 5.0 | | Not Detected /R |
| bis(2-Chloroethoxy) Methane | 1.0 | | Not Detected /R |
| 2,4-Dichlorophenol | 5.0 | | Not Detected /R |
| 1,2,4-Trichlorobenzene | 1.0 | 0.55 J | 15 |
| Naphthalene | 1.0 | 50 | 15 |
| 4-Chloroaniline | 10 | | Not Detected /R |
| Hexachlorobutadiene | 1.0 | 2.7 | 15 |
| 4-Chloro-3-methylphenol | 5.0 | | Not Detected /R |
| 2-Methylnaphthalene | 1.0 | 14 | 15 |
| Hexachlorocyclopentadiene | 20 | | Not Detected /R |
| 2,4,6-Trichlorophenol | 5.0 | | Not Detected /R |
| 2,4,5-Trichlorophenol | 5.0 | | Not Detected /R |
| 2-Chloronaphthalene | 1.0 | | Not Detected /R |
| 2-Nitroaniline | 10 | | Not Detected /R |
| Dimethylphthalate | 5.0 | | Not Detected /R |
| Acenaphthylene | 1.0 | | Not Detected /R |
| 2,6-Dinitrotoluene | 5.0 | | Not Detected /R |
| 3-Nitroaniline | 10 | | Not Detected /R |
| Acenaphthene | 1.0 | | Not Detected /R |
| 2,4-Dinitrophenol | 20 | | Not Detected /R |
| 4-Nitrophenol | 20 | | Not Detected /R |
| 2,4-Dinitrotoluene | 5.0 | | Not Detected /R |
| Dibenzofuran | 1.0 | | Not Detected /R |
| Diethylphthalate | 5.0 | | Not Detected /R |
| Fluorene | 1.0 | | Not Detected /R |
| 4-Chlorophenyl-phenyl Ether | 1.0 | | Not Detected /R |
| 4-Nitroaniline | 10 | | Not Detected /R |
| 4,6-Dinitro-2-methylphenol | 10 | | Not Detected /R |

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN1 JAN8

ID#: 0401127-07A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Sample ID | Sample Name | Sample Date | Sample Type | Sample Description |
|-----------|-------------|-------------|-------------|--------------------|
| | | | | |

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------------------------|--------------------|----------------------------|
| N-Nitrosodiphenylamine | 10 | Not Detected <i>LR</i> |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected <i>LR</i> |
| Hexachlorobenzene | 1.0 | Not Detected <i>LR</i> |
| Pentachlorophenol | 20 | Not Detected <i>LR</i> |
| Phenanthrene | 1.0 | Not Detected <i>LR</i> |
| Anthracene | 1.0 | Not Detected <i>LR</i> |
| di-n-Butylphthalate | 5.0 | Not Detected <i>LR</i> |
| Fluoranthene | 1.0 | Not Detected <i>LR</i> |
| Pyrene | 1.0 | Not Detected <i>LR</i> |
| Butylbenzylphthalate | 5.0 | Not Detected <i>LR</i> |
| 3,3'-Dichlorobenzidine | 20 | Not Detected <i>LR</i> |
| Chrysene | 1.0 | Not Detected <i>LR</i> |
| Benzo(a)anthracene | 1.0 | Not Detected <i>LR QES</i> |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.63 J <i>LB/SB</i> |
| Di-n-Octylphthalate | 5.0 | Not Detected <i>LR</i> |
| Benzo(b)fluoranthene | 1.0 | Not Detected <i>LR</i> |
| Benzo(k)fluoranthene | 1.0 | Not Detected <i>LR</i> |
| Benzo(a)pyrene | 1.0 | Not Detected <i>LR</i> |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected <i>LR</i> |
| Dibenz(a,h)anthracene | 1.0 | Not Detected <i>LR</i> |
| Benzo(g,h,i)perylene | 1.0 | Not Detected <i>LR</i> |

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|---------------|
| 2-Fluorophenol | 3.1 Q | 50-150 |
| Phenol-d5 | 72 | 50-150 |
| Nitrobenzene-d5 | 90 | 50-150 |
| 2,4,6-Tribromophenol | 86 | 50-150 |
| Fluorene-d10 | 89 | 60-120 |
| Pyrene-d10 | 91 | 60-120 |

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN2 JAN8

ID#: 0401127-08A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| | | | |
|--------------|------------------|---------------------|-------------------|
| Method ID: | TO-13A | Date of Analysis: | 1/20/2017 2:25 PM |
| Sample ID: | ACS T02 IN2 JAN8 | Time: | 14:25 |
| Sample Type: | Water | Date of Extraction: | 1/20/2017 |

| Compound | Rpt. Limit (ug) | Amount (ug) |
|-----------------------------|--------------------|----------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | 1.5 |
| 1,4-Dichlorobenzene | 1.0 | 5.4 |
| 1,2-Dichlorobenzene | 1.0 | 33 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 4.2 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 31 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 1.4 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 7.8 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Choronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

OKS
1/14

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN2 JAN8

ID#: 0401127-08A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Sample ID | Sample Name | Date of Extraction |
|-----------|-------------|--------------------|
| | | 1/11/04 |

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------------------------|--------------------|----------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Antracene | 1.0 | Not Detected |
| di-nButylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benz(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | Not Detected |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benz(b)fluoranthene | 1.0 | Not Detected |
| Benz(k)fluoranthene | 1.0 | Not Detected |
| Benz(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 18 Q 6 | 50-150 |
| Phenol-d5 | 68 | 50-150 |
| Nitrobenzene-d5 | 82 | 50-150 |
| 2,4,6-Tribromophenol | 80 | 50-150 |
| Fluorene-d10 | 79 | 60-120 |
| Pyrene-d10 | 91 | 60-120 |

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN2 JAN8 Duplicate

ID#: 0401127-08AA

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|-----------------------------|--------------------|----------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | 1.6 |
| 1,4-Dichlorobenzene | 1.0 | 5.5 |
| 1,2-Dichlorobenzene | 1.0 | 34 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 4.2 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 31 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 1.4 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 8.2 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

OT
7/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T02 IN2 JAN8 Duplicate

ID#: 0401127-08AA

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------|--------------------|----------------|
|----------|--------------------|----------------|

| | | |
|----------------------------|-----|--------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.62 J |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 17 Q | 50-150 |
| Phenol-d5 | 66 | 50-150 |
| Nitrobenzene-d5 | 83 | 50-150 |
| 2,4,6-Tribromophenol | 87 | 50-150 |
| Fluorene-d10 | 84 | 60-120 |
| Pyrene-d10 | 90 | 60-120 |

CPS
2/11/04

January 16, 2004 Off-Gas Sample Laboratory Results

AIR TOXICS LTD.

SAMPLE NAME: ACS T01 EFF1 JAN16

ID#: 0401218A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 6.7 | 22 | 17 | 57 |
| Bromomethane | 6.7 | Not Detected | 26 | Not Detected |
| Chloroethane | 6.7 | Not Detected | 18 | Not Detected |
| 1,1-Dichloroethene | 6.7 | 89 | 27 | 360 |
| Methylene Chloride | 6.7 | 470 | 24 | 1700 |
| 1,1-Dichloroethane | 6.7 | 56 | 28 | 230 |
| cis-1,2-Dichloroethene | 6.7 | 96 | 27 | 390 |
| Chloroform | 6.7 | 34 | 33 | 170 |
| 1,1,1-Trichloroethane | 6.7 | 460 | 37 | 2600 |
| Carbon Tetrachloride | 6.7 | Not Detected | 43 | Not Detected |
| Benzene | 6.7 | 520 | 22 | 1700 |
| 1,2-Dichloroethane | 6.7 | 17 | 28 | 70 |
| Trichloroethene | 6.7 | 380 | 36 | 2100 |
| 1,2-Dichloropropane | 6.7 | 5.3 J 15 | 31 | 25 J |
| cis-1,3-Dichloropropene | 6.7 | Not Detected | 31 | Not Detected |
| Toluene | 6.7 | 1900 | 26 | 7200 |
| trans-1,3-Dichloropropene | 6.7 | Not Detected | 31 | Not Detected |
| 1,1,2-Trichloroethane | 6.7 | Not Detected | 37 | Not Detected |
| Tetrachloroethene | 6.7 | 530 | 46 | 3600 |
| Chlorobenzene | 6.7 | 3.4 J 15 | 31 | 16 J |
| Ethyl Benzene | 6.7 | 140 | 30 | 640 |
| m,p-Xylene | 6.7 | 530 | 30 | 2400 |
| o-Xylene | 6.7 | 170 | 30 | 760 |
| Styrene | 6.7 | 51 | 29 | 220 |
| 1,1,2,2-Tetrachloroethane | 6.7 | Not Detected | 47 | Not Detected |
| Bromodichloromethane | 6.7 | Not Detected | 46 | Not Detected |
| Dibromochloromethane | 6.7 | Not Detected | 58 | Not Detected |
| Chloromethane | 27 | 11 J 15 | 56 | 23 J |
| Acetone | 27 | 350 | 65 | 840 |
| Carbon Disulfide | 27 | Not Detected | 85 | Not Detected |
| trans-1,2-Dichloroethene | 27 | 21 J 15 | 110 | 86 J |
| 2-Butanone (Methyl Ethyl Ketone) | 27 | 180 | 80 | 540 |
| 4-Methyl-2-pentanone | 27 | 51 | 110 | 210 |
| 2-Hexanone | 27 | Not Detected | 110 | Not Detected |
| Bromoform | 27 | Not Detected | 280 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T01 EFF1 JAN16

ID#: 0401218A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogate | Conc. (ppm) | Conc. (ppm) - 100% |
|-----------------------|-------------|--------------------|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 95 | 70-130 |
| Toluene-d8 | 104 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

CAS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T01 EFF1 JAN16 Duplicate

ID#: 0401218A-01AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------|----------------------|------------------|-----------------------|-------------------|
|----------|----------------------|------------------|-----------------------|-------------------|

| | | | | |
|----------------------------------|-----|--------------|-----|--------------|
| Vinyl Chloride | 6.7 | 24 | 17 | 62 |
| Bromomethane | 6.7 | Not Detected | 26 | Not Detected |
| Chloroethane | 6.7 | Not Detected | 18 | Not Detected |
| 1,1-Dichloroethene | 6.7 | 94 | 27 | 380 |
| Methylene Chloride | 6.7 | 490 | 24 | 1700 |
| 1,1-Dichloroethane | 6.7 | 59 | 28 | 240 |
| cis-1,2-Dichloroethene | 6.7 | 100 | 27 | 400 |
| Chloroform | 6.7 | 33 | 33 | 160 |
| 1,1,1-Trichloroethane | 6.7 | 490 | 37 | 2700 |
| Carbon Tetrachloride | 6.7 | Not Detected | 43 | Not Detected |
| Benzene | 6.7 | 530 | 22 | 1700 |
| 1,2-Dichloroethane | 6.7 | 17 | 28 | 69 |
| Trichloroethene | 6.7 | 390 | 36 | 2100 |
| 1,2-Dichloropropane | 6.7 | 5.4 J 15 | 31 | 25 J |
| cis-1,3-Dichloropropene | 6.7 | Not Detected | 31 | Not Detected |
| Toluene | 6.7 | 1900 | 26 | 7300 |
| trans-1,3-Dichloropropene | 6.7 | Not Detected | 31 | Not Detected |
| 1,1,2-Trichloroethane | 6.7 | 3.2 J 15 | 37 | 18 J |
| Tetrachloroethene | 6.7 | 510 | 46 | 3500 |
| Chlorobenzene | 6.7 | 4.0 J 15 | 31 | 19 J |
| Ethyl Benzene | 6.7 | 140 | 30 | 640 |
| m,p-Xylene | 6.7 | 520 | 30 | 2300 |
| o-Xylene | 6.7 | 170 | 30 | 760 |
| Styrene | 6.7 | 50 | 29 | 220 |
| 1,1,2,2-Tetrachloroethane | 6.7 | Not Detected | 47 | Not Detected |
| Bromodichloromethane | 6.7 | Not Detected | 46 | Not Detected |
| Dibromochloromethane | 6.7 | Not Detected | 58 | Not Detected |
| Chloromethane | 27 | 13 J 15 | 56 | 28 J |
| Acetone | 27 | 370 | 65 | 890 |
| Carbon Disulfide | 27 | Not Detected | 85 | Not Detected |
| trans-1,2-Dichloroethene | 27 | 22 J 15 | 110 | 91 J |
| 2-Butanone (Methyl Ethyl Ketone) | 27 | 180 | 80 | 540 |
| 4-Methyl-2-pentanone | 27 | 52 | 110 | 220 |
| 2-Hexanone | 27 | Not Detected | 110 | Not Detected |
| Bromoform | 27 | Not Detected | 280 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

OES
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T01 EFF1 JAN16 Duplicate

ID#: 0401218A-01AA

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 105 | 70-130 |
| 4-Bromofluorobenzene | 101 | 70-130 |

CFS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS T01 EFF1 JAN16

ID#: 0401218B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Sample Name | Date Received | Date of Preparation |
|-------------|---------------|---------------------|
| Sample ID | Prep ID | Extraction Date |
| ACST01 | 0401218B | 1/15/2016 |
| | | 1/20/2016 |

| Compound | Rpt. Limit (ug) | Amount (ug) |
|-----------------------------|--------------------|----------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | 0.78 J 15 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 0.63 J 15 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

AIR TOXICS LTD.

SAMPLE NAME: ACS T01 EFF1 JAN16

ID#: 0401218B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------|--------------------|----------------|
|----------|--------------------|----------------|

| | | |
|----------------------------|-----|--------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 3.9 J 15 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 85 | 50-150 |
| Phenol-d5 | 96 | 50-150 |
| Nitrobenzene-d5 | 95 | 50-150 |
| 2,4,6-Tribromophenol | 88 | 50-150 |
| Fluorene-d10 | 95 | 60-120 |
| Pyrene-d10 | 93 | 60-120 |

CRS
3/11/16

February 5, 2004 Off-Gas Sample Laboratory Results

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 OFS IN1 FEB5

ID#: 0402124A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 780 | 920 | 2000 | 2400 |
| Bromomethane | 780 | Not Detected | 3000 | Not Detected |
| Chloroethane | 780 | Not Detected | 2100 | Not Detected |
| 1,1-Dichloroethene | 780 | 7900 | 3100 | 32000 |
| Methylene Chloride | 780 | 45000 | 2700 | 160000 |
| 1,1-Dichloroethane | 780 | 6700 | 3200 | 28000 |
| cis-1,2-Dichloroethene | 780 | 8400 | 3100 | 34000 |
| Chloroform | 780 | 3200 | 3800 | 16000 |
| 1,1,1-Trichloroethane | 780 | 51000 | 4300 | 280000 |
| Carbon Tetrachloride | 780 | Not Detected | 5000 | Not Detected |
| Benzene | 780 | 40000 | 2500 | 130000 |
| 1,2-Dichloroethane | 780 | 2000 | 3200 | 8100 |
| Trichloroethene | 780 | 31000 | 4200 | 170000 |
| 1,2-Dichloropropane | 780 | Not Detected | 3600 | Not Detected |
| cis-1,3-Dichloropropene | 780 | Not Detected | 3600 | Not Detected |
| Toluene | 780 | 230000 | 3000 | 880000 |
| trans-1,3-Dichloropropene | 780 | Not Detected | 3600 | Not Detected |
| 1,1,2-Trichloroethane | 780 | Not Detected | 4300 | Not Detected |
| Tetrachloroethene | 780 | 43000 | 5300 | 300000 |
| Chlorobenzene | 780 | Not Detected | 3600 | Not Detected |
| Ethyl Benzene | 780 | 27000 | 3400 | 120000 |
| m,p-Xylene | 780 | 110000 | 3400 | 490000 |
| o-Xylene | 780 | 38000 | 3400 | 170000 |
| Styrene | 780 | Not Detected | 3400 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 780 | Not Detected | 5400 | Not Detected |
| Bromodichloromethane | 780 | Not Detected | 5300 | Not Detected |
| Dibromochloromethane | 780 | Not Detected | 6700 | Not Detected |
| Chloromethane | 3100 | Not Detected | 6500 | Not Detected |
| Acetone | 3100 | 28000 | 7500 | 68000 |
| Carbon Disulfide | 3100 | Not Detected | 9800 | Not Detected |
| trans-1,2-Dichloroethene | 3100 | Not Detected | 12000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 3100 | 21000 | 9300 | 63000 |
| 4-Methyl-2-pentanone | 3100 | 13000 | 13000 | 53000 |
| 2-Hexanone | 3100 | Not Detected | 13000 | Not Detected |
| Bromoform | 3100 | Not Detected | 32000 | Not Detected |

Container Type: 6 Liter Summa Canister

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 OFS IN1 FEB5

ID#: 0402124A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|------------|-----------|---------------|
|------------|-----------|---------------|

| | | |
|-----------------------|-----|--------|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 101 | 70-130 |
| 4-Bromofluorobenzene | 97 | 70-130 |

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 IN1 FEB5

ID#: 0402124A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 670 | Not Detected | 1700 | Not Detected |
| Bromomethane | 670 | Not Detected | 2600 | Not Detected |
| Chloroethane | 670 | Not Detected | 1800 | Not Detected |
| 1,1-Dichloroethene | 670 | 4900 | 2700 | 20000 |
| Methylene Chloride | 670 | 29000 | 2400 | 100000 |
| 1,1-Dichloroethane | 670 | 4400 | 2800 | 18000 |
| cis-1,2-Dichloroethene | 670 | 5600 | 2700 | 22000 |
| Chloroform | 670 | 2000 | 3300 | 10000 |
| 1,1,1-Trichloroethane | 670 | 33000 | 3700 | 180000 |
| Carbon Tetrachloride | 670 | Not Detected | 4300 | Not Detected |
| Benzene | 670 | 26000 | 2200 | 85000 |
| 1,2-Dichloroethane | 670 | 1200 | 2800 | 5200 |
| Trichloroethene | 670 | 20000 | 3600 | 110000 |
| 1,2-Dichloropropane | 670 | Not Detected | 3100 | Not Detected |
| cis-1,3-Dichloropropene | 670 | Not Detected | 3100 | Not Detected |
| Toluene | 670 | 150000 | 2600 | 570000 |
| trans-1,3-Dichloropropene | 670 | Not Detected | 3100 | Not Detected |
| 1,1,2-Trichloroethane | 670 | Not Detected | 3700 | Not Detected |
| Tetrachloroethene | 670 | 28000 | 4600 | 190000 |
| Chlorobenzene | 670 | Not Detected | 3100 | Not Detected |
| Ethyl Benzene | 670 | 17000 | 3000 | 77000 |
| m,p-Xylene | 670 | 72000 | 3000 | 320000 |
| o-Xylene | 670 | 25000 | 3000 | 110000 |
| Styrene | 670 | Not Detected | 2900 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 670 | Not Detected | 4700 | Not Detected |
| Bromodichloromethane | 670 | Not Detected | 4600 | Not Detected |
| Dibromochloromethane | 670 | Not Detected | 5800 | Not Detected |
| Chloromethane | 2700 | Not Detected | 5600 | Not Detected |
| Acetone | 2700 | 17000 | 6500 | 41000 |
| Carbon Disulfide | 2700 | Not Detected | 8500 | Not Detected |
| trans-1,2-Dichloroethene | 2700 | Not Detected | 11000 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 2700 | 13000 | 8000 | 39000 |
| 4-Methyl-2-pentanone | 2700 | 7900 | 11000 | 33000 |
| 2-Hexanone | 2700 | Not Detected | 11000 | Not Detected |
| Bromoform | 2700 | Not Detected | 28000 | Not Detected |

Container Type: 6 Liter Summa Canister

CBS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 IN1 FEB5

ID#: 0402124A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 102 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF 1 FEB5

ID#: 0402124A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 5.6 | 60 | 14 | 160 |
| Bromomethane | 5.6 | Not Detected | 22 | Not Detected |
| Chloroethane | 5.6 | Not Detected | 15 | Not Detected |
| 1,1-Dichloroethene | 5.6 | 310 | 22 | 1300 |
| Methylene Chloride | 5.6 | 380 | 20 | 1300 |
| 1,1-Dichloroethane | 5.6 | 32 | 23 | 130 |
| cis-1,2-Dichloroethene | 5.6 | 80 | 22 | 320 |
| Chloroform | 5.6 | 18 | 28 | 91 |
| 1,1,1-Trichloroethane | 5.6 | 140 | 31 | 790 |
| Carbon Tetrachloride | 5.6 | Not Detected | 35 | Not Detected |
| Benzene | 5.6 | 550 | 18 | 1800 |
| 1,2-Dichloroethane | 5.6 | 13 | 23 | 55 |
| Trichloroethene | 5.6 | 260 | 30 | 1400 |
| 1,2-Dichloropropane | 5.6 | Not Detected | 26 | Not Detected |
| cis-1,3-Dichloropropene | 5.6 | Not Detected | 26 | Not Detected |
| Toluene | 5.6 | 1100 | 21 | 4200 |
| trans-1,3-Dichloropropene | 5.6 | Not Detected | 26 | Not Detected |
| 1,1,2-Trichloroethane | 5.6 | Not Detected | 31 | Not Detected |
| Tetrachloroethene | 5.6 | 390 | 38 | 2700 |
| Chlorobenzene | 5.6 | Not Detected | 26 | Not Detected |
| Ethyl Benzene | 5.6 | 88 | 24 | 390 |
| m,p-Xylene | 5.6 | 270 | 24 | 1200 |
| o-Xylene | 5.6 | 85 | 24 | 370 |
| Styrene | 5.6 | 62 | 24 | 270 |
| 1,1,2,2-Tetrachloroethane | 5.6 | Not Detected | 39 | Not Detected |
| Bromodichloromethane | 5.6 | Not Detected | 38 | Not Detected |
| Dibromochloromethane | 5.6 | Not Detected | 48 | Not Detected |
| Chloromethane | 22 | 23 | 46 | 48 |
| Acetone | 22 | 280 | 54 | 660 |
| Carbon Disulfide | 22 | Not Detected | 70 | Not Detected |
| trans-1,2-Dichloroethene | 22 | Not Detected | 89 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 22 | 110 | 66 | 340 |
| 4-Methyl-2-pentanone | 22 | 36 | 92 | 150 |
| 2-Hexanone | 22 | Not Detected | 92 | Not Detected |
| Bromoform | 22 | Not Detected | 230 | Not Detected |

Container Type: 6 Liter Summa Canister

OPS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF 1 FEB5

ID#: 0402124A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|------------|-----------|---------------|
|------------|-----------|---------------|

| | | |
|-----------------------|-----|--------|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 100 | 70-130 |
| 4-Bromofluorobenzene | 96 | 70-130 |

CTS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 OFS IN1 FEB5

ID#: 0402124B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------|--------------------|----------------|
|----------|--------------------|----------------|

| | | |
|-----------------------------|-----|--------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | 2.1 |
| 1,4-Dichlorobenzene | 1.0 | 7.3 |
| 1,2-Dichlorobenzene | 1.0 | 54 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 12 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 0.95 J 15 |
| Naphthalene | 1.0 | 36 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 1.9 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 6.4 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | 0.55 J 15 |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 OFS IN1 FEB5

ID#: 0402124B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------|--------------------|----------------|
|----------|--------------------|----------------|

| | | |
|----------------------------|-----|--------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.87 J 15 |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 18 Q | 50-150 |
| Phenol-d5 | 68 | 50-150 |
| Nitrobenzene-d5 | 93 | 50-150 |
| 2,4,6-Tribromophenol | 83 | 50-150 |
| Fluorene-d10 | 87 | 60-120 |
| Pyrene-d10 | 91 | 60-120 |

CRS
3/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 IN1 FEB5

ID#: 0402124B-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|-----------------------------|--------------------|----------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | 1.4 |
| 1,4-Dichlorobenzene | 1.0 | 5.2 |
| 1,2-Dichlorobenzene | 1.0 | 39 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 7.2 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 0.58 J /5 |
| Naphthalene | 1.0 | 22 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 1.4 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 3.6 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 IN1 FEB5

ID#: 0402124B-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------------------------|--------------------|----------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | 1.9 J /5 |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | Not Detected |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 19 Q | 50-150 |
| Phenol-d5 | 77 | 50-150 |
| Nitrobenzene-d5 | 93 | 50-150 |
| 2,4,6-Tribromophenol | 89 | 50-150 |
| Fluorene-d10 | 93 | 60-120 |
| Pyrene-d10 | 96 | 60-120 |

CRS
7/11/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF 1 FEBS

ID#: 0402124B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------|--------------------|----------------|
|----------|--------------------|----------------|

| | | |
|-----------------------------|-----|--------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | Not Detected |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | Not Detected |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

CRS

AIR TOXICS LTD.

SAMPLE NAME: ACS TO2 EFF 1 FEB5

ID#: 0402124B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------|--------------------|----------------|
|----------|--------------------|----------------|

| | | |
|----------------------------|-----|--------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | Not Detected |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | 1.6 J 15 |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | Not Detected |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 78 | 50-150 |
| Phenol-d5 | 86 | 50-150 |
| Nitrobenzene-d5 | 83 | 50-150 |
| 2,4,6-Tribromophenol | 87 | 50-150 |
| Fluorene-d10 | 88 | 60-120 |
| Pyrene-d10 | 95 | 60-120 |

CRS
3/11/04

March 4, 2004 Off-Gas Sample Laboratory Results

AIR TOXICS LTD.

SAMPLE NAME: ACS OFSI SVE MAR4

ID#: 0403119A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 270 | 160 J 15 | 700 | 400 J |
| Bromomethane | 270 | Not Detected | 1000 | Not Detected |
| Chloroethane | 270 | Not Detected | 720 | Not Detected |
| 1,1-Dichloroethene | 270 | 280 | 1100 | 1100 |
| Methylene Chloride | 270 | 21000 | 950 | 74000 |
| 1,1-Dichloroethane | 270 | 3400 | 1100 | 14000 |
| cis-1,2-Dichloroethene | 270 | 4400 | 1100 | 18000 |
| Chloroform | 270 | 1500 | 1300 | 7300 |
| 1,1,1-Trichloroethane | 270 | 28000 | 1500 | 150000 |
| Carbon Tetrachloride | 270 | Not Detected | 1700 | Not Detected |
| Benzene | 270 | 19000 | 870 | 62000 |
| 1,2-Dichloroethane | 270 | 1000 | 1100 | 4300 |
| Trichloroethene | 270 | 16000 | 1500 | 86000 |
| 1,2-Dichloropropane | 270 | Not Detected | 1200 | Not Detected |
| cis-1,3-Dichloropropene | 270 | Not Detected | 1200 | Not Detected |
| Toluene | 270 | 100000 | 1000 | 390000 |
| trans-1,3-Dichloropropene | 270 | Not Detected | 1200 | Not Detected |
| 1,1,2-Trichloroethane | 270 | Not Detected | 1500 | Not Detected |
| Tetrachloroethene | 270 | 20000 | 1800 | 140000 |
| Chlorobenzene | 270 | Not Detected | 1200 | Not Detected |
| Ethyl Benzene | 270 | 12000 | 1200 | 52000 |
| m,p-Xylene | 270 | 52000 | 1200 | 230000 |
| o-Xylene | 270 | 17000 | 1200 | 76000 |
| Styrene | 270 | Not Detected | 1200 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 270 | Not Detected | 1900 | Not Detected |
| Bromodichloromethane | 270 | Not Detected | 1800 | Not Detected |
| Dibromochloromethane | 270 | Not Detected | 2300 | Not Detected |
| Chloromethane | 1100 | Not Detected | 2200 | Not Detected |
| Acetone | 1100 | 14000 | 2600 | 34000 |
| Carbon Disulfide | 1100 | Not Detected | 3400 | Not Detected |
| trans-1,2-Dichloroethene | 1100 | Not Detected | 4300 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 1100 | 10000 | 3200 | 30000 |
| 4-Methyl-2-pentanone | 1100 | 5200 | 4500 | 22000 |
| 2-Hexanone | 1100 | Not Detected | 4500 | Not Detected |
| Bromoform | 1100 | Not Detected | 11000 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 101 | 70-130 |

CPS

AIR TOXICS LTD.

SAMPLE NAME: ACS OFSI SVE MAR4

ID#: 0403119A-01A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogate | Conc. (ppm) | Method Recovery (%) | Method Detection Limit (ppm) |
|----------------------|-------------|---------------------|------------------------------|
| 4-Bromofluorobenzene | 100 | 99 | 70-130 |

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|---------------|
| 4-Bromofluorobenzene | 99 | 70-130 |

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 IN MAR4

ID#: 0403119A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rot. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 270 | 210 J /5 | 710 | 540 J |
| Bronomethane | 270 | Not Detected | 1100 | Not Detected |
| Chloroethane | 270 | 480 | 730 | 1300 |
| 1,1-Dichloroethene | 270 | 250 J /5 | 1100 | 1000 J |
| Methylene Chloride | 270 | 17000 | 960 | 60000 |
| 1,1-Dichloroethane | 270 | 2900 | 1100 | 12000 |
| cis-1,2-Dichloroethene | 270 | 5200 | 1100 | 21000 |
| Chloroform | 270 | 1200 | 1300 | 5800 |
| 1,1,1-Trichloroethane | 270 | 21000 | 1500 | 120000 |
| Carbon Tetrachloride | 270 | Not Detected | 1700 | Not Detected |
| Benzene | 270 | 21000 | 880 | 69000 |
| 1,2-Dichloroethane | 270 | 900 | 1100 | 3700 |
| Trichloroethene | 270 | 12000 | 1500 | 66000 |
| 1,2-Dichloropropane | 270 | Not Detected | 1300 | Not Detected |
| cis-1,3-Dichloropropene | 270 | Not Detected | 1200 | Not Detected |
| Toluene | 270 | 81000 | 1000 | 310000 |
| trans-1,3-Dichloropropene | 270 | Not Detected | 1200 | Not Detected |
| 1,1,2-Trichloroethane | 270 | 83 J /5 | 1500 | 460 J |
| Tetrachloroethene | 270 | 16000 | 1900 | 110000 |
| Chlorobenzene | 270 | Not Detected | 1300 | Not Detected |
| Ethyl Benzene | 270 | 10000 | 1200 | 46000 |
| m,p-Xylene | 270 | 45000 | 1200 | 200000 |
| o-Xylene | 270 | 15000 | 1200 | 68000 |
| Styrene | 270 | Not Detected | 1200 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 270 | Not Detected | 1900 | Not Detected |
| Bromodichloromethane | 270 | Not Detected | 1800 | Not Detected |
| Dibromochloromethane | 270 | Not Detected | 2400 | Not Detected |
| Chloromethane | 1100 | Not Detected | 2300 | Not Detected |
| Acetone | 1100 | 10000 | 2600 | 26000 |
| Carbon Disulfide | 1100 | Not Detected | 3400 | Not Detected |
| trans-1,2-Dichloroethene | 1100 | Not Detected | 4400 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 1100 | 7700 | 3300 | 23000 |
| 4-Methyl-2-pentanone | 1100 | 4600 | 4500 | 19000 |
| 2-Hexanone | 1100 | Not Detected | 4500 | Not Detected |
| Bromoform | 1100 | Not Detected | 11000 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|------------------|
| 1,2-Dichloroethane-d4 | 100 | 70-130 |
| Toluene-d8 | 100 | 70-130 |

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 IN MAR4

ID#: 0403119A-02A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 4-Bromo fluorobenzene | 101 | 70-130 |

4-Bromo fluorobenzene

101

70-130

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 IN DUP MAR4

ID#: 0403119A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 280 | 190 J /5 | 720 | 500 J |
| Bromomethane | 280 | Not Detected | 1100 | Not Detected |
| Chloroethane | 280 | 450 | 740 | 1200 |
| 1,1-Dichloroethene | 280 | 210 J /5 | 1100 | 860 J |
| Methylene Chloride | 280 | 16000 | 980 | 57000 |
| 1,1-Dichloroethane | 280 | 2800 | 1100 | 11000 |
| cis-1,2-Dichloroethene | 280 | 4900 | 1100 | 20000 |
| Chloroform | 280 | 1100 | 1400 | 5500 |
| 1,1,1-Trichloroethane | 280 | 21000 | 1500 | 110000 |
| Carbon Tetrachloride | 280 | Not Detected | 1800 | Not Detected |
| Benzene | 280 | 21000 | 900 | 68000 |
| 1,2-Dichloroethane | 280 | 840 | 1100 | 3500 |
| Trichloroethene | 280 | 12000 | 1500 | 66000 |
| 1,2-Dichloropropane | 280 | 270 J /5 | 1300 | 1300 |
| cis-1,3-Dichloropropene | 280 | Not Detected | 1300 | Not Detected |
| Toluene | 280 | 80000 | 1100 | 310000 |
| trans-1,3-Dichloropropene | 280 | Not Detected | 1300 | Not Detected |
| 1,1,2-Trichloroethane | 280 | 97 J /5 | 1500 | 540 J |
| Tetrachloroethene | 280 | 16000 | 1900 | 110000 |
| Chlorobenzene | 280 | Not Detected | 1300 | Not Detected |
| Ethyl Benzene | 280 | 10000 | 1200 | 44000 |
| m,p-Xylene | 280 | 44000 | 1200 | 190000 |
| o-Xylene | 280 | 15000 | 1200 | 66000 |
| Styrene | 280 | Not Detected | 1200 | Not Detected |
| 1,1,2,2-Tetrachloroethane | 280 | Not Detected | 1900 | Not Detected |
| Bromodichloromethane | 280 | Not Detected | 1900 | Not Detected |
| Dibromochloromethane | 280 | Not Detected | 2400 | Not Detected |
| Chloromethane | 1100 | Not Detected | 2300 | Not Detected |
| Acetone | 1100 | 10000 | 2700 | 25000 |
| Carbon Disulfide | 1100 | Not Detected | 3500 | Not Detected |
| trans-1,2-Dichloroethene | 1100 | Not Detected | 4500 | Not Detected |
| 2-Butanone (Methyl Ethyl Ketone) | 1100 | 7500 | 3300 | 22000 |
| 4-Methyl-2-pentanone | 1100 | 4500 | 4600 | 19000 |
| 2-Hexanone | 1100 | Not Detected | 4600 | Not Detected |
| Bromoform | 1100 | Not Detected | 12000 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|------------------|
| 1,2-Dichloroethane-d4 | 98 | 70-130 |
| Toluene-d8 | 101 | 70-130 |

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 IN DUP MAR4

ID#: 0403119A-03A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| | |
|--------------|----------------------|
| Sample Name: | ACS TOX2 IN DUP MAR4 |
| Sample ID#: | 0403119A-03A |

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|---------------|
| 4-Bromofluorobenzene | 96 | 70-130 |

CPS
2/30/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 Eff MAR4

ID#: 0403119A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Compound | Rpt. Limit (ppbv) | Amount (ppbv) | Rpt. Limit (uG/m3) | Amount (uG/m3) |
|----------------------------------|----------------------|------------------|-----------------------|-------------------|
| Vinyl Chloride | 2.7 | 42 | 7.1 | 110 |
| Bromomethane | 2.7 | Not Detected | 11 | Not Detected |
| Chloroethane | 2.7 | 5.9 | 7.3 | 16 |
| 1,1-Dichloroethene | 2.7 | 200 | 11 | 800 |
| Methylene Chloride | 2.7 | 280 | 9.6 | 1000 |
| 1,1-Dichloroethane | 2.7 | 31 | 11 | 130 |
| cis-1,2-Dichloroethene | 2.7 | 110 | 11 | 430 |
| Chloroform | 2.7 | 15 | 13 | 76 |
| 1,1,1-Trichloroethane | 2.7 | 160 | 15 | 870 |
| Carbon Tetrachloride | 2.7 | Not Detected | 17 | Not Detected |
| Benzene | 2.7 | 530 | 8.8 | 1700 |
| 1,2-Dichloroethane | 2.7 | 14 | 11 | 56 |
| Trichloroethene | 2.7 | 220 | 15 | 1200 |
| 1,2-Dichloropropane | 2.7 | 2.4 J /S | 13 | 11 J |
| cis-1,3-Dichloropropene | 2.7 | 0.35 J /S | 12 | 1.6 J |
| Toluene | 2.7 | 960 | 10 | 3700 |
| trans-1,3-Dichloropropene | 2.7 | Not Detected | 12 | Not Detected |
| 1,1,2-Trichloroethane | 2.7 | 1.4 J /S | 15 | 8.1 J |
| Tetrachloroethene | 2.7 | 330 | 19 | 2300 |
| Chlorobenzene | 2.7 | 2.8 | 13 | 13 |
| Ethyl Benzene | 2.7 | 89 | 12 | 390 |
| m,p-Xylene | 2.7 | 320 | 12 | 1400 |
| o-Xylene | 2.7 | 110 | 12 | 500 |
| Styrene | 2.7 | 51 | 12 | 220 |
| 1,1,2,2-Tetrachloroethane | 2.7 | Not Detected | 19 | Not Detected |
| Bromodichloromethane | 2.7 | Not Detected | 18 | Not Detected |
| Dibromochloromethane | 2.7 | Not Detected | 24 | Not Detected |
| Chloromethane | 11 | 13 | 23 | 28 |
| Acetone | 11 | 230 | 26 | 560 |
| Carbon Disulfide | 11 | 2.3 J /S | 34 | 7.3 J |
| trans-1,2-Dichloroethene | 11 | 14 | 44 | 58 |
| 2-Butanone (Methyl Ethyl Ketone) | 11 | 92 | 33 | 280 |
| 4-Methyl-2-pentanone | 11 | 37 | 45 | 150 |
| 2-Hexanone | 11 | Not Detected | 45 | Not Detected |
| Bromoform | 11 | Not Detected | 110 | Not Detected |

J = Estimated value.

Container Type: 6 Liter Summa Canister

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|------------------|
| 1,2-Dichloroethane-d4 | 99 | 70-130 |
| Toluene-d8 | 100 | 70-130 |

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 Eff MAR4

ID#: 0403119A-04A

MODIFIED EPA METHOD TO-14A GC/MS FULL SCAN

| Surrogates | %Recovery | Method Limits |
|-----------------------|-----------|---------------|
| 4-Bromoefluorobenzene | 96 | 70-130 |

CPS
11-105

AIR TOXICS LTD.

SAMPLE NAME: ACS OFSI SVE MAR4

ID#: 0403119B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------|--------------------|----------------|
|----------|--------------------|----------------|

| | | |
|-----------------------------|-----|--------------|
| Phenol | 5.0 | 5.0 |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | 1.6 |
| 1,4-Dichlorobenzene | 1.0 | 5.6 |
| 1,2-Dichlorobenzene | 1.0 | 42 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | 3.7 J 15 |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 14 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | 0.93 J 15 |
| Naphthalene | 1.0 | 29 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 1.6 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 4.9 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

ACS
12/10/04

AIR TOXICS LTD.

SAMPLE NAME: ACS OFSI SVE MAR4

ID#: 0403119B-01A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (μ g) | Amount (μ g) |
|----------------------------|--------------------------|----------------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.44 J /B |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | 0.78 J /S |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|---------------|
| 2-Fluorophenol | 21 Q | 50-150 |
| Phenol-d5 | 94 | 50-150 |
| Nitrobenzene-d5 | 105 | 50-150 |
| 2,4,6-Tribromophenol | 97 | 50-150 |
| Fluorene-d10 | 97 | 60-120 |
| Pyrene-d10 | 95 | 60-120 |

CRS
3/30/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 IN MAR4

ID#: 0403119B-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------|--------------------|----------------|
|----------|--------------------|----------------|

| | | |
|-----------------------------|-----|--------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | 0.95 J 15 |
| 1,2-Dichlorobenzene | 1.0 | 7.0 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 1.6 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 7.3 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 0.44 J 15 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 1.8 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 IN MAR4

ID#: 0403119B-02A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------|--------------------|----------------|
|----------|--------------------|----------------|

| | | |
|----------------------------|-----|--------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.34 J /B |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | Not Detected |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 38 Q | 50-150 |
| Phenol-d5 | 101 | 50-150 |
| Nitrobenzene-d5 | 98 | 50-150 |
| 2,4,6-Tribromophenol | 97 | 50-150 |
| Fluorene-d10 | 97 | 60-120 |
| Pyrene-d10 | 99 | 60-120 |

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3/30/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 IN DUP MAR4

ID#: 0403119B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN



| Compound | Rpt Limit (ug) | Amount (ug) |
|-----------------------------|-------------------|----------------|
| Phenol | 5.0 | 1.9 J / 5 |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | 0.73 J / 5 |
| 1,4-Dichlorobenzene | 1.0 | 2.7 |
| 1,2-Dichlorobenzene | 1.0 | 20 |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | 1.1 J / 5 |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | 5.2 |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | 32 |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | 1.5 |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | 8.5 |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 IN DUP MAR4

ID#: 0403119B-03A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------------------------|--------------------|----------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.41 J /B |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | Not Detected |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenzo(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Q = Exceeds Quality Control limits, possibly due to matrix effects.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 30 Q | 50-150 |
| Phenol-d5 | 101 | 50-150 |
| Nitrobenzene-d5 | 101 | 50-150 |
| 2,4,6-Tribromophenol | 97 | 50-150 |
| Fluorene-d10 | 97 | 60-120 |
| Pyrene-d10 | 96 | 60-120 |

CPS

3/30/04

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 Eff MAR4

ID#: 0403119B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Sample ID | Sample Name | Date of Analysis | Analyst |
|--------------|-------------------|------------------|---------|
| 0403119B-04A | ACS TOX2 Eff MAR4 | 07/20/2014 | PES |
| | | | |

| Compound | Rpt. Limit (ug) | Amount (ug) |
|-----------------------------|--------------------|----------------|
| Phenol | 5.0 | Not Detected |
| bis(2-Chloroethyl) Ether | 1.0 | Not Detected |
| 2-Chlorophenol | 5.0 | Not Detected |
| 1,3-Dichlorobenzene | 1.0 | Not Detected |
| 1,4-Dichlorobenzene | 1.0 | Not Detected |
| 1,2-Dichlorobenzene | 1.0 | Not Detected |
| 2-Methylphenol (o-Cresol) | 5.0 | Not Detected |
| N-Nitroso-di-n-propylamine | 1.0 | Not Detected |
| 4-Methylphenol | 5.0 | Not Detected |
| Hexachloroethane | 1.0 | Not Detected |
| Nitrobenzene | 1.0 | Not Detected |
| Isophorone | 1.0 | Not Detected |
| 2-Nitrophenol | 5.0 | Not Detected |
| 2,4-Dimethylphenol | 5.0 | Not Detected |
| bis(2-Chloroethoxy) Methane | 1.0 | Not Detected |
| 2,4-Dichlorophenol | 5.0 | Not Detected |
| 1,2,4-Trichlorobenzene | 1.0 | Not Detected |
| Naphthalene | 1.0 | Not Detected |
| 4-Chloroaniline | 10 | Not Detected |
| Hexachlorobutadiene | 1.0 | Not Detected |
| 4-Chloro-3-methylphenol | 5.0 | Not Detected |
| 2-Methylnaphthalene | 1.0 | Not Detected |
| Hexachlorocyclopentadiene | 20 | Not Detected |
| 2,4,6-Trichlorophenol | 5.0 | Not Detected |
| 2,4,5-Trichlorophenol | 5.0 | Not Detected |
| 2-Chloronaphthalene | 1.0 | Not Detected |
| 2-Nitroaniline | 10 | Not Detected |
| Dimethylphthalate | 5.0 | Not Detected |
| Acenaphthylene | 1.0 | Not Detected |
| 2,6-Dinitrotoluene | 5.0 | Not Detected |
| 3-Nitroaniline | 10 | Not Detected |
| Acenaphthene | 1.0 | Not Detected |
| 2,4-Dinitrophenol | 20 | Not Detected |
| 4-Nitrophenol | 20 | Not Detected |
| 2,4-Dinitrotoluene | 5.0 | Not Detected |
| Dibenzofuran | 1.0 | Not Detected |
| Diethylphthalate | 5.0 | Not Detected |
| Fluorene | 1.0 | Not Detected |
| 4-Chlorophenyl-phenyl Ether | 1.0 | Not Detected |
| 4-Nitroaniline | 10 | Not Detected |
| 4,6-Dinitro-2-methylphenol | 10 | Not Detected |

PES
7/1/14

AIR TOXICS LTD.

SAMPLE NAME: ACS TOX2 Eff MAR4

ID#: 0403119B-04A

MODIFIED EPA METHOD TO-13A GC/MS FULL SCAN

| Compound | Rpt. Limit (ug) | Amount (ug) |
|----------------------------|--------------------|----------------|
| N-Nitrosodiphenylamine | 10 | Not Detected |
| 4-Bromophenyl-phenyl Ether | 1.0 | Not Detected |
| Hexachlorobenzene | 1.0 | Not Detected |
| Pentachlorophenol | 20 | Not Detected |
| Phenanthrene | 1.0 | Not Detected |
| Anthracene | 1.0 | Not Detected |
| di-n-Butylphthalate | 5.0 | 0.42 J /B |
| Fluoranthene | 1.0 | Not Detected |
| Pyrene | 1.0 | Not Detected |
| Butylbenzylphthalate | 5.0 | Not Detected |
| 3,3'-Dichlorobenzidine | 20 | Not Detected |
| Chrysene | 1.0 | Not Detected |
| Benzo(a)anthracene | 1.0 | Not Detected |
| bis(2-Ethylhexyl)phthalate | 5.0 | Not Detected |
| Di-n-Octylphthalate | 5.0 | Not Detected |
| Benzo(b)fluoranthene | 1.0 | Not Detected |
| Benzo(k)fluoranthene | 1.0 | Not Detected |
| Benzo(a)pyrene | 1.0 | Not Detected |
| Indeno(1,2,3-c,d)pyrene | 1.0 | Not Detected |
| Dibenz(a,h)anthracene | 1.0 | Not Detected |
| Benzo(g,h,i)perylene | 1.0 | Not Detected |

J = Estimated value.

Container Type: XAD Tube

| Surrogates | %Recovery | Method Limits |
|----------------------|-----------|------------------|
| 2-Fluorophenol | 81 | 50-150 |
| Phenol-d5 | 90 | 50-150 |
| Nitrobenzene-d5 | 90 | 50-150 |
| 2,4,6-Tribromophenol | 90 | 50-150 |
| Fluorene-d10 | 89 | 60-120 |
| Pyrene-d10 | 93 | 60-120 |

(RS
3/30/04)